Asset Management Reference

ZENworks® 11 Support Pack 2

October 2013

Novell®

Legal Notices

Novell, Inc., makes no representations or warranties with respect to the contents or use of this documentation, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc., reserves the right to revise this publication and to make changes to its content, at any time, without obligation to notify any person or entity of such revisions or changes.

Further, Novell, Inc., makes no representations or warranties with respect to any software, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc., reserves the right to make changes to any and all parts of Novell software, at any time, without any obligation to notify any person or entity of such changes.

Any products or technical information provided under this Agreement may be subject to U.S. export controls and the trade laws of other countries. You agree to comply with all export control regulations and to obtain any required licenses or classification to export, re-export or import deliverables. You agree not to export or re-export to entities on the current U.S. export exclusion lists or to any embargoed or terrorist countries as specified in the U.S. export laws. You agree to not use deliverables for prohibited nuclear, missile, or chemical biological weaponry end uses. See the Novell International Trade Services Web page (http://www.novell.com/info/exports/) for more information on exporting Novell software. Novell assumes no responsibility for your failure to obtain any necessary export approvals.

Copyright © 2007-2013 Novell, Inc. All rights reserved. No part of this publication may be reproduced, photocopied, stored on a retrieval system, or transmitted without the express written consent of the publisher.

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

Online Documentation: To access the latest online documentation for this and other Novell products, see the Novell Documentation Web page (http://www.novell.com/documentation).

Novell Trademarks

For Novell trademarks, see the Novell Trademark and Service Mark list (http://www.novell.com/company/legal/trademarks/tmlist.html).

Third-Party Materials

All third-party trademarks are the property of their respective owners.

Contents

About This Guide 9

Part I License Compliance 11

1 License Compliance Concepts 13

1.1 License Compliance Components . . . 13
1.2 Entitlements . . . 16
1.2.1 Entitlement Types . . . 16
1.2.2 License Models . . . 17
1.2.3 User Sources for User-Based License Models . . . 19
1.2.4 License Periods . . . 19
1.2.5 Compliance Calculations for Multiple Entitlements . . . 19
1.3 Installation Data . . . 20
1.4 License Data . . . 20
1.5 Suites and Software Collections . . . 21
1.6 Version Upgrades . . . 21

2 Setting Up License Compliance 23

2.1 Preparing Your Management Zone . . . 23
2.2 Setting Up Compliance for Software Products . . . 24
2.3 Monitoring Compliance . . . 26

3 Configuring Compliance Settings 27

4 Monitoring Compliance Status 29

4.1 Home Page . . . 29
4.2 Licensed Products List . . . 29
4.3 Licensed Product's Compliance Status Page . . . 30
4.3.1 License Consumption (Consumption Data Source: Inventory) . . . 31
4.3.2 Compliance Status (Consumption Data Source: Inventory) . . . 32
4.3.3 Unresolved Installations . . . 33
4.3.4 Compliance Status (Consumption Data Source: Manual) . . . 35

5 Generating Compliance Reports 37

6 Working with Licensed Products 39

6.1 Viewing the Licensed Products List . . . 39
6.2 Filtering the Licensed Products List . . . 40
6.3 Creating a Licensed Product Folder . . . 41
6.4 Refreshing Compliance Status . . . 41
6.4.1 Automatically Refreshing Status . . . 42
6.4.2 Manually Triggering a Refresh . . . 42
6.4.3 Viewing Refresh Details . . . 42
6.5 Creating a Licensed Product . . . 43

6.5.1 Manually Creating a Licensed Product . . . 43
6.5.2 Creating a Licensed Product from a Discovered Product . . . 44
6.6 Changing a Licensed Product's General Information . . . 46
6.7 Adding Custom Fields to Licensed Products . . . 47
6.8 Merging Licensed Products . . . 49
6.9 Deleting a Licensed Product . . . 50
6.10 Moving a Licensed Product . . . 50

7 Working with Entitlements 51

7.1 Viewing a Licensed Product's Entitlements . . . 51
7.2 Creating an Entitlement . . . 52
7.2.1 Creating an Inventory Entitlement . . . 53
7.2.2 Creating a Manual Entitlement . . . 55
7.3 Adding Catalog Products . . . 57
7.3.1 Editing an Entitlement to Add Catalog Products . . . 57
7.3.2 Using the Catalog Products List to Add Catalog Products . . . 58
7.4 Adding Purchase Summary Records . . . 58
7.5 Adding Discovered Products . . . 59
7.5.1 Editing an Entitlement to Add Discovered Products . . . 59
7.5.2 Using the Discovered Products List to Add Discovered Products . . . 60
7.6 Specifying User and Device Coverage . . . 61
7.6.1 Adding Covered Devices to OEM and Machine Entitlements . . . 61
7.6.2 Adding Covered Users to Per-Named User Entitlements . . . 62
7.6.3 Excluding Users from Per-User Entitlements . . . 63
7.7 Adding Contracts and Documents . . . 64

8 Working with Discovered Products 67

8.1 How Installed Software Products Become Discovered Products . . . 67
8.2 Viewing the Discovered Products List . . . 68
8.3 Filtering the Discovered Products List . . . 69
8.4 Excluding Discovered Products from Compliance Calculations . . . 70
8.5 Adding Discovered Products to Licensed Products . . . 70
8.5.1 Editing an Entitlement to Add Discovered Products . . . 70
8.5.2 Using the Discovered Products List to Add Discovered Products . . . 71
8.6 Adding Discovered Products to Software Collections . . . 72
8.7 Viewing a Discovered Product's Installations . . . 72
8.8 Adjusting a Discovered Product's Installation Count . . . 73
8.9 Assigning a Standards Category . . . 75
8.10 Viewing the Inventory Products Included in a Discovered Product . . . 76
8.11 Refreshing Compliance Status . . . 77
8.11.1 Automatically Refreshing Status . . . 77
8.11.2 Manually Triggering a Refresh . . . 78
8.11.3 Viewing Refresh Details . . . 78

9 Working with Purchase Records 79

9.1 Viewing the Purchase Records List . . . 79
9.2 Filtering the Purchase Records List . . . 80
9.3 Creating a Purchase Record Folder . . . 80
9.4 Creating Purchase Records . . . 81
9.4.1 Importing Purchase Records . . . 81
9.4.2 Manually Creating Purchase Records . . . 83
9.5 Viewing a Purchase Record's Details . . . 84
9.6 Changing a Purchase Record's General Information . . . 86

9.7 Deleting a Purchase Record . . . 86
9.8 Moving a Purchase Record . . . 87
9.9 Working with Import Files . . . 87
9.9.1 Format . . . 87
9.9.2 Fields . . . 87

10 Working with Catalog Products 93

10.1 Viewing the Catalog Products List . . . 93
10.2 Filtering the Catalog Products List . . . 94
10.3 Excluding Catalog Products from Compliance Calculations . . . 95
10.4 Creating Catalog Products by Importing Purchase Records . . . 96
10.5 Creating Catalog Products Manually . . . 96
10.6 Adding Purchased Licenses to a Catalog Product . . . 97
10.7 Adding Catalog Products to a Licensed Product . . . 98
10.7.1 Editing an Entitlement to Add Catalog Products . . . 98
10.7.2 Using the Catalog Products List to Add Catalog Products . . . 98
10.8 Creating a Catalog Product Folder . . . 99
10.9 Viewing a Catalog Product's Purchases . . . 100
10.10 Changing a Catalog Product's General Information . . . 100
10.11 Deleting a Catalog Product . . . 101
10.12 Moving a Catalog Product . . . 102

11 Working with Software Collections 103

11.1 How Software Collection Installations are Counted . . . 103
11.2 Creating a Software Collection . . . 104
11.3 Adding Products to a Software Collection . . . 104
11.4 Deleting a Software Collection . . . 105
11.5 Creating a Software Collection Folder . . . 105
11.6 Moving a Software Collection . . . 106

Part II License Allocation 109

12 License Allocation Concepts 111

12.1 Allocation vs. Compliance . . . 111
12.2 Device Allocations and Demographic Allocations . . . 111

13 Preparing Demographic Data 113

13.1 Adding Demographic Data to Devices . . . 113
13.2 Adding Demographic Data to Purchase Records . . . 114
13.3 Adding Demographic Data to Purchase Record Import Files . . . 115
13.4 Making Demographic Data Consistent Between Devices and Purchase Records . . . 116

14 Allocating Licenses 117

14.1 Initializing Allocations . . . 117
14.2 Manually Adding Demographic Allocations . . . 120
14.3 Manually Adding Device Allocations . . . 121

15 Working with License Allocations 125

15.1 Adjusting the License Quantity for a Demographic Allocation 125
15.2 Removing Allocations 126

16 Generating Allocation Reports 129

Part III Software Usage 131

17 Software Usage Concepts 133

17.1 Software That Is Tracked 133
17.2 When Usage Data Is Collected 133
17.3 Basic Usage Data vs. Detailed Usage Data 134

18 Configuring Usage Settings 135

19 Setting Up Web Applications 137

20 Monitoring Usage 139

20.1 Discovered Products List 139
20.2 Licensed Product's Compliance Status Page 139
20.3 Discovered Product's Installation/Consumption Page 140

21 Generating Usage Reports 143

Part IV Contracts 145

22 Creating New Contracts 147

23 Working with Existing Contracts 151

23.1 Viewing the Contracts List 151
23.2 Filtering the Contracts List 152
23.3 Creating a Contracts Folder 153
23.4 Copying an Existing Contract 153
23.5 Adding Documents to Contracts 154

24 Working with Date Notifications 155

24.1 Specifying an E-Mail Server 155
24.2 Configuring Default Settings 155
24.3 Adding Date Notifications to a Contract 156
24.4 Viewing the Date Notifications List 158
24.5 Filtering the Date Notifications List 158
24.6 Creating Date Notification Folders 159
24.7 Moving a Date Notification 159
24.8 Deleting a Date Notification 160

25 Generating Contract Reports **161**

Part V Documents **163**

26 Uploading Documents **165**

27 Working with Documents **167**

27.1 Viewing the Documents List . . . 167
27.2 Filtering the Documents List . . . 168
27.3 Creating a Documents Folder . . . 168
27.4 Attaching Documents to Licensed Products, Contracts, and Purchase Summary Records . . . 169

Part VI Reports **171**

28 Standard and Custom Report Descriptions **173**

28.1 License Management Reports . . . 173
28.1.1 Standard Reports . . . 173
28.1.2 Sample Custom Reports . . . 174
28.2 Software Usage Reports . . . 174
28.2.1 Standard Reports . . . 175
28.2.2 Sample Custom Reports . . . 176
28.3 Contract Management Reports . . . 176
28.3.1 Standard Reports . . . 176
28.3.2 Sample Custom Reports . . . 177

29 Configuring Report Rights **179**

30 Configuring Report Settings **181**

31 Working with Standard Reports **183**

31.1 Running a Report . . . 183
31.2 Exporting a Report . . . 184
31.3 Viewing a Report as a Graph . . . 184
31.4 Changing the Report Period . . . 184
31.5 Changing the Filter Criteria . . . 185

32 Working with Custom Reports **187**

32.1 Creating a Custom Report . . . 187
32.2 Running a Custom Report . . . 188
32.3 Scheduling a Custom Report . . . 189
32.4 Viewing a Scheduled Custom Report . . . 191
32.5 Editing a Custom Report . . . 191
32.6 Creating a Custom Report Folder . . . 193
32.7 Deleting a Custom Report Folder . . . 193
32.8 Moving a Custom Report . . . 194
32.9 Deleting a Custom Report . . . 194
32.10 Importing New Report Definitions . . . 195

33 Working with ZENworks Reporting Reports **197**

33.1 Viewing a Predefined Report 197
33.2 Predefined Reports 197
33.2.1 License Allocation Reports 198
33.2.2 Purchases Reports 198
33.2.3 Software Compliance Reports 199
33.2.4 Suites Reports 199
33.2.5 Licensed Products And Entitlements Report 199

A Documentation Updates **201**

A.1 October 2013: 11 SP3 (11.2.4) 201

About This Guide

This *Novell ZENworks 11 Asset Management Reference* includes information to help you manage the software licenses within your organization. The information in this guide is organized as follows:

- Part I, “License Compliance,” on page 11
- Part II, “License Allocation,” on page 109
- Part III, “Software Usage,” on page 131
- Part IV, “Contracts,” on page 145
- Part V, “Documents,” on page 163
- Part VI, “Reports,” on page 171
- Appendix A, “Documentation Updates,” on page 201

Audience

This guide is intended for Novell ZENworks administrators.

Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comments feature at the bottom of each page of the online documentation.

Additional Documentation

ZENworks 11 Asset Management is supported by other documentation (in both PDF and HTML formats) that you can use to learn about and implement the product. For additional documentation, see the .

License Compliance

Novell ZENworks Asset Management lets you monitor software products in your organization to know whether or not your software deployment complies with your software licensing.

- Chapter 1, “License Compliance Concepts,” on page 13
- Chapter 2, “Setting Up License Compliance,” on page 23
- Chapter 3, “Configuring Compliance Settings,” on page 27
- Chapter 4, “Monitoring Compliance Status,” on page 29
- Chapter 5, “Generating Compliance Reports,” on page 37
- Chapter 6, “Working with Licensed Products,” on page 39
- Chapter 7, “Working with Entitlements,” on page 51
- Chapter 8, “Working with Discovered Products,” on page 67
- Chapter 9, “Working with Purchase Records,” on page 79
- Chapter 10, “Working with Catalog Products,” on page 93
- Chapter 11, “Working with Software Collections,” on page 103

1 License Compliance Concepts

Ensuring that your organization owns the licenses needed to cover the products your users have installed is a critical component of license management. At the same time, you want to minimize costs by purchasing only the number of licenses that you really need.

Novell ZENworks Asset Management helps you attain this balance by monitoring and reporting the license compliance status (compliant, overcompliant, or undercompliant) of your software products.

The following sections introduce the concepts you should understand to effectively use Asset Management to manage software license compliance in your organization:

- Section 1.1, “License Compliance Components,” on page 13
- Section 1.2, “Entitlements,” on page 16
- Section 1.3, “Installation Data,” on page 20
- Section 1.4, “License Data,” on page 20
- Section 1.5, “Suites and Software Collections,” on page 21
- Section 1.6, “Version Upgrades,” on page 21

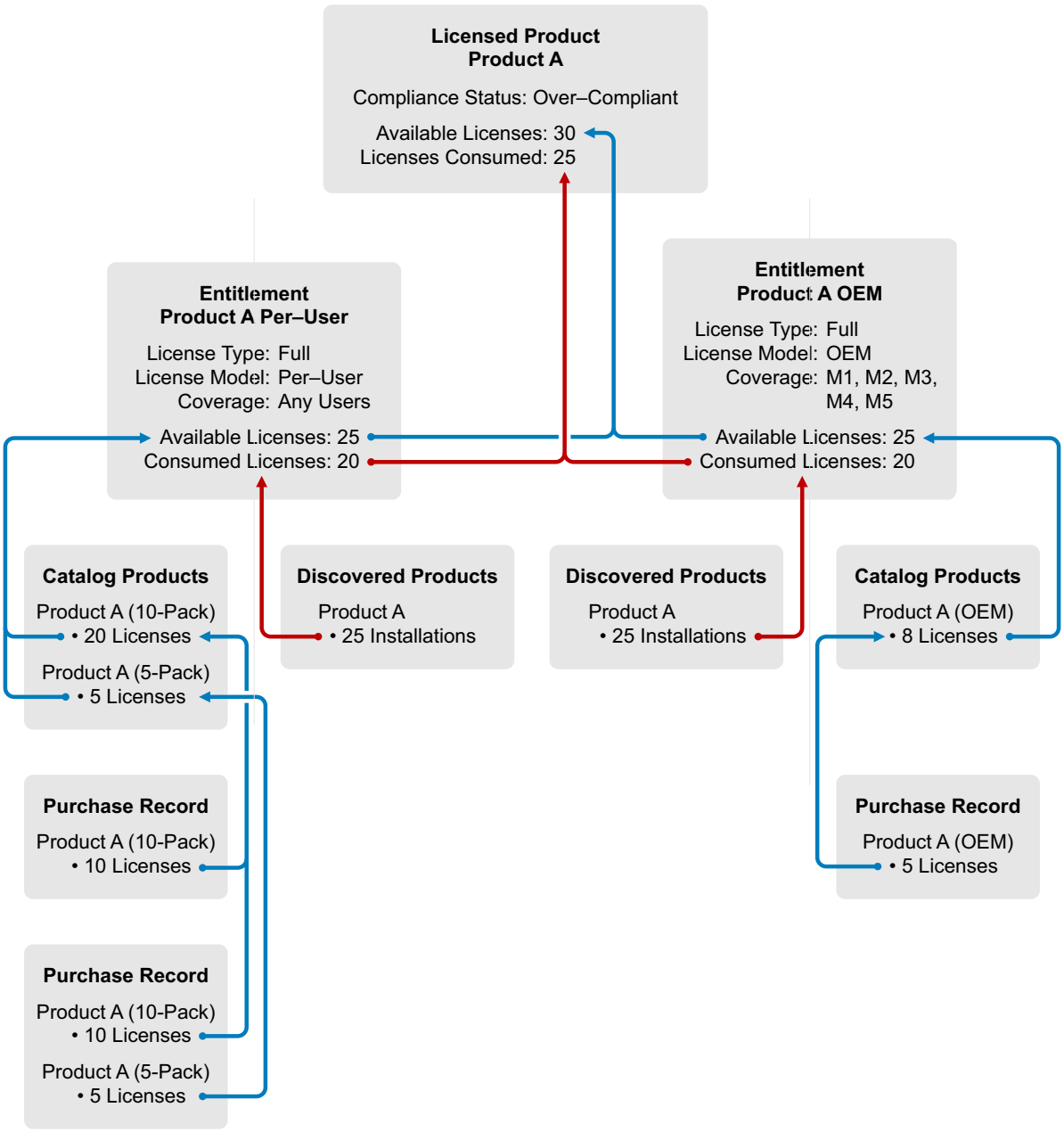
1.1 License Compliance Components

To know whether or not a software product’s deployment within your organization complies with your software product license records, you must reconcile three important pieces of information about the product:

- **Entitlement:** The rights to the software product, including how, where, and how long the product can be used. Can the user use the product only on the OEM machine with which it came? Can the user install the product on multiple machines under one license? Does each installation of the product require a license? Can the product be used forever, or does it have an expiration date? This information is contained in the software product’s license agreement or in a software purchase contract.
- **Licenses:** The number of licenses of the software product that your organization has purchased. Typically, this information comes from purchase records provided by the software vendor.
- **Installations:** The actual number of installations of the software product in your organization. ZENworks Asset Inventory can provide this information by scanning the devices in your organization (as long as the devices are registered in your ZENworks Management Zone). Or, you can manually provide this information.

The following illustration shows the components that Asset Management uses to bring your product information together:

Figure 1-1 *Compliance Components*



Licensed Product: A *licensed product* is the software product whose license compliance status you want to monitor. The information (entitlements, installations, and purchased licenses) needed to determine the compliance status is provided through the licensed product's components (entitlements, discovered products, catalog products, and purchase records).

A licensed product can be version independent (such as Product A) to cover multiple versions, or it can be version-specific (such as Product B Version 11).

License Entitlement: More than likely, not all of your purchases of a software product fall under the same license agreement. Some agreements might specify different license types (full, upgrade, and so forth), some might specify different license models (per-user, per-installation, OEM, and so forth), or some might have different license periods (perpetual or fixed-term).

Each different license agreement for the software product must be represented by a unique *license entitlement*. A license entitlement defines the agreement details such as the license type, license model, and license period. In addition, a license entitlement includes the number of product installations, the number of purchased licenses, and the users and devices whose product installations can be covered by the entitlement. Based on the entitlement details and the available licenses, consumed licenses (from installations), and coverage information, Asset Management determines the licensed product's compliance status.

In the example, Product A has two entitlements representing two license agreements with different license models:

- An OEM license agreement. The installations of the product on the covered OEM machines (M1, M2, M3, M4, and M5) are tracked against the OEM entitlement to monitor compliance with the OEM license agreement.
- A Per-User license agreement. All other installations are tracked against the Per-User entitlement to monitor compliance with that agreement.

More information about entitlements is included in Section 1.2, "Entitlements," on page 16.

Catalog Products: A *catalog product* identifies a software product for which you've purchased licenses. When added to an entitlement, a catalog product's licenses become available for consumption by the entitlement's installations.

Typically, a catalog product corresponds to a specific product part number. For example, when you purchase a single copy, a 10-pack, and a 100-pack of the same software product, each has a different product part number. As a result, each is a separate catalog product. Likewise, if you purchase two 10-packs of the same software product, one a full license pack and the other an upgrade license pack, each of these is a separate catalog product.

As a result, a single software product might have multiple catalog products. This allows you to assign the appropriate catalog products to the appropriate entitlements. In the example, the catalog products that represent non-OEM versions of Product A are associated with the Product A Per-User entitlement, resulting in 25 available licenses. The Product A OEM catalog product is associated with the Product A OEM entitlement, resulting in 5 available licenses.

More information about catalog products is found in Section 1.4, "License Data," on page 20.

Purchase Records: A *purchase record* provides details about the number of licenses purchased for a software product. The licenses roll up to the catalog product that represents the purchased software product.

When you purchase a software product over time, you end up with multiple purchase records for the same software product. In this case, the software product's licenses (included in each purchase record) roll up to the same catalog product. In the example, Product A (10-Pack) was purchased at two different times; however, the licenses from both purchase records are rolled into the Product A (10-Pack) catalog product.

If you have electronic purchase record files, you can import the purchase records. When you import a purchase record file, Asset Management creates catalog products for the software products included in the file. If you do not have purchase record files, you must manually enter the purchase records and manually create the catalog products.

If you do not have purchase records that include detailed software purchase information, you can create *purchase summary records* to represent the purchased licenses. To provide proof of purchases, you can attach supporting documents to the purchase summary records.

More information about purchase records is found in Section 1.4, "License Data," on page 20.

Discovered Products: A *discovered product* represents a software product installed in your Management Zone. When associated with an entitlement, the discovered product's installations are eligible to consume the entitlement's licenses.

If a discovered product's installations can be covered by different entitlements (for the same licensed product), you can assign the discovered product to each entitlement. Based on the entitlements' license models and coverage, the Asset Management compliance engine determines which entitlement covers each installation.

In the example, Product A (the discovered product) is associated with both entitlements. Five of the installations (on M1, M2, M3, M4, and M5) consume licenses in the Product A OEM entitlement. The other 20 installations consume licenses in the Product A Per-User entitlement.

More information about discovered products is found in Section 1.3, "Installation Data," on page 20.

1.2 Entitlements

As explained in Section 1.1, "License Compliance Components," on page 13, license entitlements are one of the three pieces of information that you need to understand and manage to effectively maintain license compliance for a software product. The following sections explain concepts that apply to entitlements:

- Section 1.2.1, "Entitlement Types," on page 16
- Section 1.2.2, "License Models," on page 17
- Section 1.2.3, "User Sources for User-Based License Models," on page 19
- Section 1.2.4, "License Periods," on page 19
- Section 1.2.5, "Compliance Calculations for Multiple Entitlements," on page 19

1.2.1 Entitlement Types

When you create an entitlement, you specify the entitlement type. There are three different types of entitlements:

- **Full License:** Represents a license agreement that gives users the right to install the product without owning a previous version.
- **License/Maintenance:** Represents a license agreement that gives users full license rights to the purchased version and subsequent maintenance versions.
- **Version Upgrade:** Represents a license agreement that gives users rights to upgrade a previous product version to the new version. A Version Upgrade entitlement references a base entitlement to automatically adjust available licenses between itself and the base entitlement. More information about Version Upgrade entitlements is provided in Section 1.6, "Version Upgrades," on page 21.

1.2.2 License Models

When you create an entitlement, you specify the license model for the entitlement. The entitlement's license model determines 1) how license consumption is calculated and 2) which product installations can be covered by the entitlement.

There are different license models for entitlements that use Inventory installation data and for entitlements that use manually-entered installation data.

- "License Models for Inventory Entitlements" on page 17
- "License Models for Manual Entitlements" on page 18

License Models for Inventory Entitlements

The Inventory data for a discovered product includes information about the devices on which the product is installed and the primary users associated with those devices. This installation-to-device-to-user association supports the following *device-based* and *user-based* license models:

Table 1-1 *License Models for Inventory Entitlements*

License Model	License Consumption	Coverage	Example
Per-Installation	Each installation of the entitlement's discovered products consumes a license.	All devices.	20 users have the product installed on one device each. An additional 5 users each have the product installed on two devices. There are 30 total installations, and each installation consumes a license.
OEM	A covered device consumes a license whether or not any of the entitlement's discovered products are installed on the device.	Only the devices you specify as covered devices.	You specify 15 devices as covered devices. The product is installed on only 12 of the devices because three users have uninstalled the product. Even though there are 12 total installations, all 15 covered devices consume a license.
Machine	A covered device consumes a license only if one or more of the entitlement's discovered products are installed on the device.	Only the devices you specify as covered devices.	You specify 15 devices as covered devices. The product is installed on only 12 of the devices. Even though you specified 15 covered devices, there are 12 total installations, so 12 covered devices consume a license.
Per-User	Each user consumes a single license for any installations of the entitlement's discovered products, regardless of the number of installations.	All users. You can exclude specific users.	The entitlement includes two discovered products (DP1 and DP2). Both products are installed on User1's device. User1 consumes one license. Or, DP1 is installed on one of User1's devices and DP1 and DP2 are installed on another of User1's devices, User1 still consumes only one of the entitlement's licenses.

License Model	License Consumption	Coverage	Example
Per-Named User	Each covered user consumes a single license for any installations of the entitlement's discovered products, regardless of the number of installations.	Only the users you specify as covered users.	Same as the Per-User model.

License Models for Manual Entitlements

When you manually enter installation data (rather than use the Inventory data), no device or user information is associated with the installations. Because of this, entitlements with manual data source support only *installation-based* license models. You provide the total installation quantity, and that quantity consumes any of the entitlement's available licenses.

There are several predefined license models for manual entitlements. These license models are intended to match the license models most commonly used in license agreements. If your license model is not represented, you can define it.

Table 1-2 *License Models for Manual Entitlements*

License Model	License Consumption	Coverage	Example
Unrestricted Qualified Desktop CPU User Named User Server CAL Site Enterprise	Each installation consumes a license.	The specified installation quantity.	Example 1: 20 users have the product installed. The license agreement specifies a User license model. You select User as the entitlement's license model and enter 20 total installations to cover the product installations. The 20 installations consume any licenses associated with the entitlement. Example 2: 15 servers have a server product installed. The license agreement specifies a Server license model. You select Server as the entitlement's license model and enter 15 total installations to cover the product installations. The 15 installations consume any licenses associated with the entitlement.

1.2.3 User Sources for User-Based License Models

Discovered product installations are associated with devices. For example, if a discovered product is found on two devices, both devices are recorded in the discovered product's information. This installation-to-device association enables the use of *device-based* license models (Per-Installation, OEM, and Machine).

To enable *user-based* license models (Per-User and Per-Named User), Asset Management uses an installation-to-device-to-user association. This means that each device must have a user associated with it. There are two different user sources that can provide this association. You must choose one or the other:

- **Inventory User Data:** Each device's Inventory data includes a user field. Asset Inventory does not automatically populate the field. There are three ways that you can populate the user information: 1) collect the information from users through an automated Inventory Collection Data form, 2) manually enter the user information by editing a device's Inventory data in ZENworks Control Center, or 3) migrate Inventory data from ZENworks 7.5 Asset Management.
- **Authoritative User Source:** This is the LDAP directory (or directories) your ZENworks Management Zone connects to for user information. By default, the ZENworks system is configured to automatically assign users from this source as primary users on devices. If a device has multiple users, the primary user is determined by a calculation method that you can select (usage based, login based, or direct assignment).

Both options work equally well. The Authoritative User Source method provides greater automation because you don't need to manually enter user information, migrate information, or rely on users to complete the automated collection form.

If you are using Asset Management with ZENworks 7 Desktop Management, you must use the Inventory User Data method. The ZENworks Adaptive Agent's User Management feature, which is required with the Authoritative User Source method, cannot coexist on the same device with the ZENworks 7 Desktop Management Agent. Installing the User Management feature automatically uninstalls the Desktop Management Agent.

1.2.4 License Periods

License agreements (or contracts) might stipulate a period of time during which the product can be used. When you create an entitlement, you specify whether the license period is perpetual (never ending) or fixed term. With fixed term, you specify the start date and end date.

1.2.5 Compliance Calculations for Multiple Entitlements

It is common for a licensed product to have multiple entitlements that share the same discovered product. When this happens, the Software Compliance Engine must determine how the discovered product's installations are allocated among the entitlements.

The Software Compliance Engine processes the entitlements with the most restrictive license models first. The most restrictive entitlements have fewer installations that meet the restrictions. By processing them first, the greatest number of installations can be processed against the entitlements, increasing the likelihood that the entitlement's licenses are consumed.

Entitlements are processed in the following order (most restrictive to least restrictive):

1. **OEM:** Covers an installation only if it is on a specified device.
2. **Machine:** Covers an installation only if it is on a specified device.
3. **Named User:** Covers an installation only if it is associated with a specified user.

4. **Per User (with Installations > 1):** Covers an installation only if it is associated with a user that has the product installed at least twice.
5. **Per Installation:** Covers an installation on any device.
6. **Per User (with Installations = 1):** Covers an installation associated with any user.
7. **Manual:** Covers the manually specified number of installations.

If, after processing all of a licensed product's entitlements, there are discovered product installations that have not been consumed by a entitlement, the Software Compliance Engine reports the licensed product as undercompliant (more installations than licenses). Each unconsumed installation is also reported as an unresolved installation on the licensed product's Compliance Status page.

1.3 Installation Data

As explained in Section 1.1, "License Compliance Components," on page 13, the number of installations of a product is one of the three primary pieces of information that is required to determine the product's license compliance. Your installation data can come from two different sources:

- **Inventory Data:** Asset Inventory scans the devices in your ZENworks Management Zone and saves the installed software product information to the ZENworks database. Asset Management maps the installation information to discovered products. When a discovered product is associated with an entitlement, the discovered product's installations are eligible to consume one of the entitlement's licenses.

  Using Inventory to provide the installation data is the recommended approach because it is the most automated. If a product is installed or uninstalled on a device, the change is automatically reflected in the data (and the corresponding discovered product) after the next Inventory scan. In addition, using Inventory data provides the ability to use both device-based and user-based license models (see "License Models for Inventory Entitlements" on page 17).
- **Manual Data:** You manually edit an entitlement (in ZENworks Control Center) to provide the number of product installations. This requires you to know how many devices have the product installed, and to change the number whenever installations are added or removed. In addition, you are limited to using only installation-based license models; device-based and user-based license models are not available (see "License Models for Manual Entitlements" on page 18).

An entitlement can use only one source for its installation data. However, a licensed product can include multiple entitlements, with some entitlements drawing installation data from Inventory data and other entitlements using manual data.

1.4 License Data

As explained in Section 1.1, "License Compliance Components," on page 13, the number of purchased licenses is one of the three primary pieces of information that is required to determine the product's license compliance. You license data can come from two different sources:

- **Catalog Products and Purchase Records:** A catalog product identifies a software product for which you have purchased licenses. When added to an entitlement, a catalog product's licenses become available for consumption by the entitlement's installations.

  A catalog product's licenses come from purchase records for the software product. If multiple purchase records include license purchases for the software product, all licenses are rolled up to the catalog product.

Using catalog products and purchase records as the data source for your purchased licenses is the recommended method. Each time you add a purchase record for the software product, the catalog product's available license quantity is automatically increased by the number of new licenses.

- **Purchase Summary Records:** A purchase summary record lets you directly enter a license quantity on an entitlement. The summary record includes the product's description, cost, and license quantity. The disadvantage to using a purchase record summary is that it doesn't enable you to track the product licenses through a catalog product and a purchase record.

An entitlement can use one or both sources for its available licenses.

1.5 Suites and Software Collections

In addition to standalone products, Asset Management can maintain license compliance for suite products such as Microsoft Office and OpenOffice.org. Suites are included as discovered products in the ZENworks Knowledgebase. A suite discovered product includes information about the suite members.

When an Inventory scan discovers a suite installed on a device (for example, through the registry settings), the installation is counted toward the suite's installation total rather than the suite members' installation totals. For example, if Microsoft Word, Microsoft Excel, and Microsoft PowerPoint are installed as a Microsoft Office suite on a device, the installation is applied to the Microsoft Office discovered product and not the Word, Excel, and PowerPoint discovered products. However, if these applications are discovered as standalone products (no Microsoft Office installation), the installation is applied to each individual discovered products.

Software collections are administrator-defined suites. You can use them to account for suites that are not included in the ZENworks Knowledgebase. With a software collection, you define the member products and specify which member products must be installed on a device to qualify as a software collection installation. If all required member products are installed on a device, the installation counts towards the software collection. If some required member products are missing, the member product installations count towards the individual discovered products.

1.6 Version Upgrades

A typical license agreement for a software version upgrade stipulates that you replace installations of the base product with the upgrade product. In other words, the license entitlement (usage, quantity, and so forth) is transferred from the base product to the upgrade product.

For example, if you purchase 10 licenses of the base product and then purchase 6 licenses of the upgrade product, you are entitled to 4 installations of the base product and 6 installations of the upgrade product. The total number of installations (10) you are entitled to remains the same.

To account for version upgrades, Asset Management provides a type of entitlement called a Version Upgrade. With a Version Upgrade entitlement, you specify a base entitlement for the upgrade. The following applies to the base entitlement:

- It must belong to the same licensed product as the upgrade entitlement. In other words, you can't create an Upgrade Version entitlement in LicensedProduct1 and use a base entitlement from LicensedProduct2.

- It can be any of the three entitlement types: Full License, License/Maintenance, or Version Upgrade. This supports upgrades of upgrades.
- It can support multiple Version Upgrade entitlements. For example, EntitlementA can be the base entitlement for VersionUpgradeEntitlement1 and VersionUpgradeEntitlement2.

When a licensed product contains a Version Upgrade entitlement, the Software Compliance Engine calculates the available license quantity for the Version Upgrade entitlement and subtracts that license quantity from the base entitlement.

2 Setting Up License Compliance

The following sections provide instructions to help you set up license compliance for your software products:

- Section 2.1, “Preparing Your Management Zone,” on page 23
- Section 2.2, “Setting Up Compliance for Software Products,” on page 24
- Section 2.3, “Monitoring Compliance,” on page 26

If you have not already done so, review the concepts in Chapter 1, “License Compliance Concepts,” on page 13 before beginning. In particular, make sure you understand the components introduced in Section 1.1, “License Compliance Components,” on page 13.

2.1 Preparing Your Management Zone

Before you can begin setting up compliance for your software products, you need to prepare your ZENworks Management Zone. This includes configuring several Management Zone settings, discovering software products that are installed on devices in your Management Zone, and populating your Management Zone with software purchase information.

The following table explains the tasks you need to complete and where you can find specific instructions to help you complete them.

Table 2-1 *Management Zone Preparation Tasks*

Task	Details
Configure ZENworks Management Zone settings	There are two ZENworks Management Zone settings related to license compliance. One setting determines when the compliance engine runs each day and the other setting determines the user source (authoritative user source or Inventory user data) for user-based license models. For instructions, see Chapter 3, “Configuring Compliance Settings,” on page 27.

Task	Details
Discover installed software products	Asset Management needs to know what software products are installed in your organization and how many installations exist for each product. Asset Inventory provides this information by scanning the devices in your ZENworks Management Zone to discover installed software products. Asset Management then filters the installed products through the Asset Management Knowledgebase to consolidate and combine the installed products into the list of discovered products used with license compliance. If you have not performed a software inventory scan of the devices in your zone, or if the software inventory data has not been updated recently, you must scan the devices to create a list of discovered products. You cannot manually create discovered products. For instructions, see the *ZENworks 11 Asset Inventory Reference*.
Record software purchase information	Asset Management needs to know what software products you've purchased and how many licenses you've purchased for each product. You enter this information into the Asset Management system as purchase records and catalog products. For instructions, see Section 9.4, "Creating Purchase Records," on page 81.

2.2 Setting Up Compliance for Software Products

The following table explains the tasks you need to complete to configure software products for license compliance.

These tasks assume that you've already completed the tasks in Section 2.1, "Preparing Your Management Zone," on page 23 to populate your ZENworks Management Zone with discovered products and catalog products.

Table 2-2 *Compliance Setup Tasks*

Task	Details
Create licensed products	A licensed product represents a software product whose license compliance you want to monitor. All of the information needed to determine a licensed product's compliance status (installations, purchased licenses, license usage agreements) is provided through the components associated with the licensed product For instructions, see Section 6.5, "Creating a Licensed Product," on page 43.

	Task	Details
	Create entitlements	A license entitlement typically represents a license agreement for a licensed product. It includes such agreement details as the license type (full, upgrade, maintenance, and so forth) and the license model (per-user, per-installation, OEM, machine, and so forth). Based on the license model, it also specifies which users or machines are covered by the entitlement. Some licensed products might have only one entitlement. For example, you might have a product whose installations all fall under a full license, per-installation agreement. Other products, however, might have multiple entitlements. For example, you might have a product for which you have OEM-licensed installations and per-user licensed installations. To correctly cover both license agreements, you need two entitlements with different license models and user/machine coverage. A second example might be a product that includes a full license agreement and a version upgrade agreement. If you used the Auto-Reconcile Wizard to create licensed products, an entitlement was created for each licensed product. If any of the licensed products require additional entitlements, you can add them at this time. If you manually created licensed products, they do not yet have entitlements; you must create them. For instructions, see Section 7.2, “Creating an Entitlement,” on page 52.
	Add catalog products or Add purchase summary records	To populate a licensed product with the number of licenses you have purchased for the product, you add catalog products to the licensed product’s entitlements. If you used the Auto-Reconcile Wizard to create licensed products, catalog products might already have been added to some of the licensed products. If any licensed products require additional catalog products, you can add them at this time. For instructions, see Section 7.3, “Adding Catalog Products,” on page 56. If you don’t have a catalog product to assign to a licensed product, you can use purchase summary records to add licenses to the licensed product. For instructions, see Section 7.4, “Adding Purchase Summary Records,” on page 58.
	Add discovered products	If a licensed product you created includes an Inventory entitlement (an entitlement that draws its installation counts from Inventory data), you need to add discovered products to the entitlement. The discovered products associate the appropriate software product installations with the licensed product, Per-User, Per-Named User, OEM, Machine, and Per-Installation are the Inventory entitlements. For instructions, see Section 7.5, “Adding Discovered Products,” on page 59.
	Specify users and devices covered by the entitlement	If you created an entitlement that uses an OEM, Machine, Per-Named User, or Per-User license model, you must specify with devices or users are covered by the entitlement. For instructions, see Section 7.6, “Specifying User and Device Coverage,” on page 61.

2.3 Monitoring Compliance

The following table explains how you can monitor a product's compliance status.

Table 2-3 *Compliance Monitoring Tasks*

Task	Details
View compliance status in ZENworks Control Center	ZENworks Control Center provides both high-level and detailed views of a product's compliance status. The high-level views let you see if a product is compliant, undercompliant, or overcompliant. The detailed views let you see why a product's compliance status is what it is. For instructions, see Chapter 4, "Monitoring Compliance Status," on page 29.
Generate compliance reports	You can generate reports that show the compliance status for all products or only the products that have a specific compliance status. You can also generate reports that help you manage your discovered products, catalog products, and purchase records. For instructions, see Chapter 5, "Generating Compliance Reports," on page 37.

3 Configuring Compliance Settings

There are two ZENworks Management Zone settings related to license compliance. One setting determines when the compliance engine runs each day and the other setting determines the user source (authoritative user source or Inventory user data) for user-based license models.

To configure the settings:

1. In ZENworks Control Center, click the *Configuration* tab.
2. In the Management Zone Settings panel, click *Asset Management* to display the settings.
3. Configure the Compliance setting:
   - **3a** Click *Compliance*.
   - **3b** Select the time you want the compliance engine to run each day.

     The compliance engine refreshes the compliance data and status for each licensed product. The default run time is 11:00 pm each day.
   - **3c** Click *OK*.
4. Configure the User Source setting:

   To support user-based license models (Per-User and Per-Named User), Asset Management requires an installation-to-device-to-user association so that any product installations on a device can be assigned to the device's user. The installation-to-device association is created through Inventory scans. There are two different user sources that can be used to provide the device-to-user association.

   - **4a** Click *User Source*, then select one of the following user sources:
     - **Inventory user data:** Each device's Inventory data includes an *Entered User* field that associates a user to the device (*Device* tab > device > *Inventory* page > *Detailed Hardware/Software Inventory* link > *Entered User* field).

       Asset Inventory does not automatically populate the *Entered User* field. If you use this source, make sure that each device has an *Entered User*. There are three ways that you can populate the user information: 1) collect the information from users through an automated Inventory Collection Data form, 2) manually enter the user information by editing a device's Inventory data in ZENworks Control Center, or 3) migrate Inventory data from ZENworks 7.5 Asset Management.
     - **Authoritative user source:** This is the LDAP directory (or directories) your ZENworks Management Zone connects to for user information. By default, the ZENworks system is configured to automatically assign users from this source as primary users on devices. If a device has multiple users, the primary user is determined by a calculation method that you can select (usage based, login based, or direct assignment).

   You can use only one source at a time. If you change the source, all existing assignments of licenses to users are removed.

   IMPORTANT: If you are using ZENworks 7 Desktop Management with ZENworks 11 Asset Management on the same devices, use the *Inventory user data* option instead of the *Authoritative user source* option. The *Authoritative user source* option requires the ZENworks

11 Adaptive Agent User Management feature to be installed. However, the User Management feature cannot coexist with the ZENworks 7 Desktop Management Agent, which results in the ZENworks 7 Desktop Management Agent being uninstalled.

4b Click *OK*.

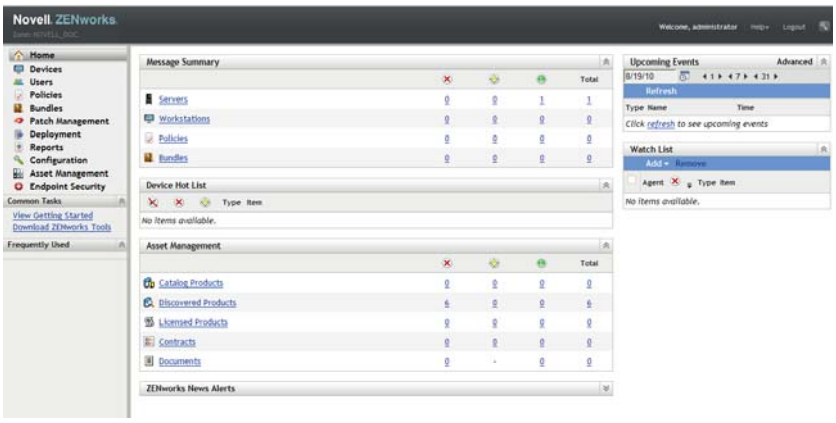
4 Monitoring Compliance Status

There a multiple locations in ZENworks Control Center where you can view the compliance status of licensed products.

- Section 4.1, “Home Page,” on page 29
- Section 4.2, “Licensed Products List,” on page 29
- Section 4.3, “Licensed Product’s Compliance Status Page,” on page 30

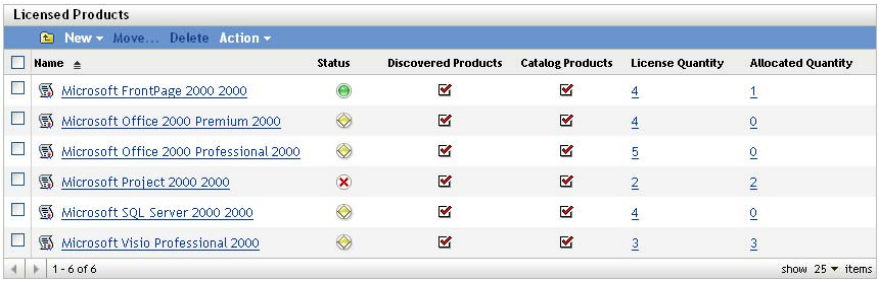
4.1 Home Page

The Asset Management panel on the Home page lists the total number of properly licensed products (), underlicensed products (), and overlicensed products (). You can click a status to view the licensed products with that status.



4.2 Licensed Products List

The Licensed Products list (*Asset Management* tab > *License Management* tab > *Licensed Products*) displays whether a product is properly licensed (), underlicensed (), or overlicensed ().



You can click a licensed product to display details about the compliance status (see Section 4.3, “Licensed Product’s Compliance Status Page,” on page 30). You can also use the Search filter to display only the licensed products with a specific status.

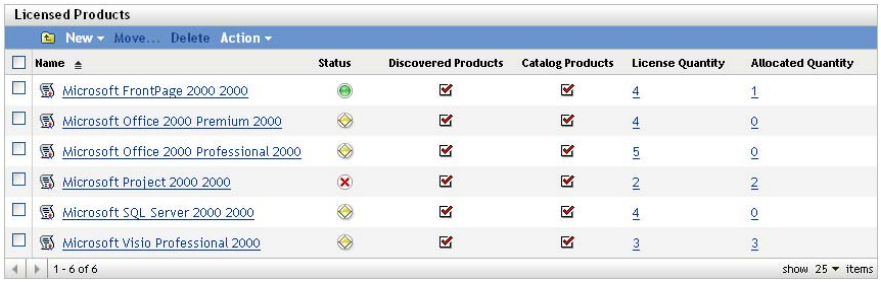
4.3 Licensed Product’s Compliance Status Page

A licensed product’s compliance status is determined by the compliance status of each of its entitlements. For example, three entitlements might be properly licensed and one entitlement underlicensed. The licensed product’s status shows as underlicensed.

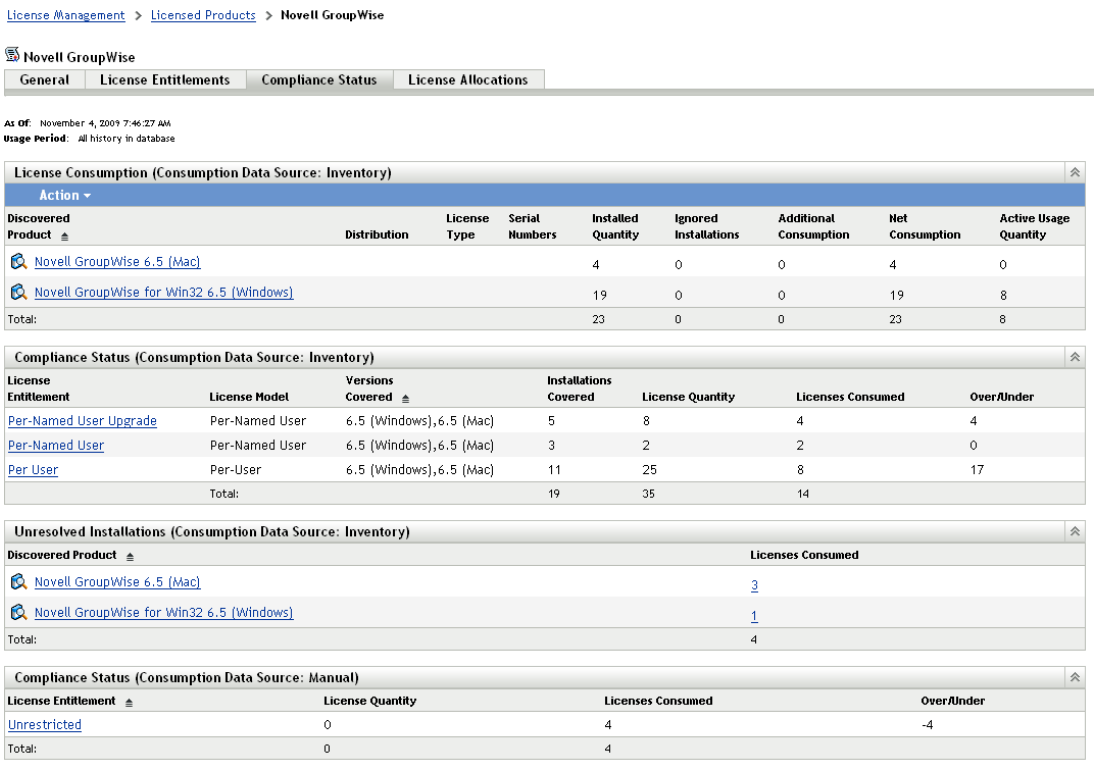
A licensed product’s Compliance Status page shows details about the license compliance status for each entitlement. If the licensed product is non-compliant, you can use the details to understand what needs to be done to make it compliant.

To access a licensed product’s Compliance Status page:

1. In ZENworks Control Center, click the *Asset Management* tab.
2. In the License Management tab, click *Licensed Products*.



3. Click the licensed product.
4. Click the *Compliance Status* tab.



The Compliance Status page includes the following panels:

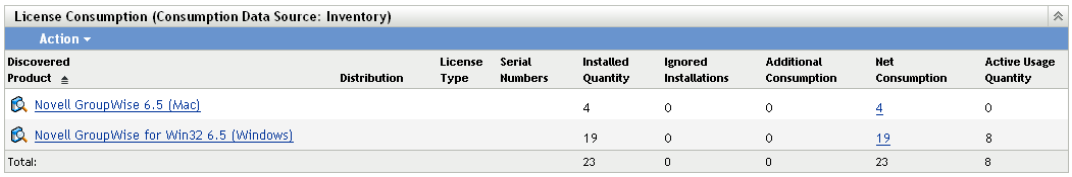
- **License Consumption (Consumption Data Source: Inventory):** Displays the installation data for discovered products associated with this licensed product.

  The *Net Consumption* field provides the total number of installations for a discovered product. It is determined by the following formula: *Net Consumption* = (*Installed Quantity* + *Additional Consumption*) - *Ignored Installations*. Installed Quantity is the number of installations discovered by Inventory scans. Additional Consumption and Ignored Installations are manual adjustments that can be made by editing the discovered product's details.

- **Compliance Status (Consumption Data Source: Inventory):** Displays the compliance status for all entitlements that use Inventory installation data.
- **Unresolved Installations:** Displays any discovered products with installations that are not covered by an entitlement. This panel is displayed only when there are unresolved installations.
- **Compliance Status (Consumption Data Source: Manual):** Displays the compliance status for all entitlements that use manually entered installation data.

4.3.1 License Consumption (Consumption Data Source: Inventory)

This panel displays the installation data for discovered products associated with this licensed product.



For license compliance, the following fields are important:

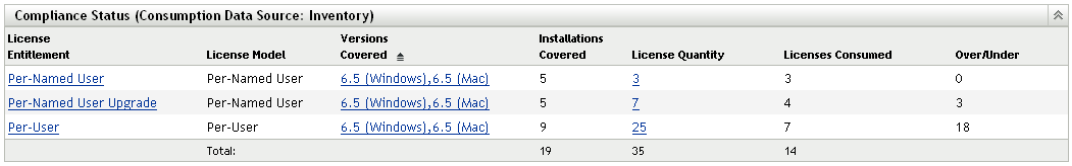
- **Net Consumption:** Provides the total number of installations for a discovered product. All of these installations must be covered by the entitlements in order for the licensed product to be compliant. The net consumption is determined by the following formula:

  Net Consumption = (*Installed Quantity* + *Additional Consumption*) - *Ignored Installations*.

  Click the consumption number to view the discovered product's Installations/Consumptions page. This page provides details for the installation and consumption data and lets you ignore installations and specify additional consumption.
- **Installed Quantity:** Displays the number of installations discovered by Inventory scans.
- **Additional Consumption:** Displays the number of extra installations that are included in the compliance calculations. This is a manual adjustment that you can make if there are installations that were not found by Inventory scans that you want included in the net consumption. For instructions, see Section 8.8, "Adjusting a Discovered Product's Installation Count," on page 73.
- **Ignored Installations:** Displays the number of installations that are excluded from the compliance calculations. This is a manual adjustment that you can make if there are installations you don't want included in the net consumption. For instructions, see Section 8.8, "Adjusting a Discovered Product's Installation Count," on page 73.

4.3.2 Compliance Status (Consumption Data Source: Inventory)

This panel displays the compliance status for all entitlements that use Inventory installation data.



Compliance Status (Consumption Data Source: Inventory)

License Entitlement	License Model	Versions Covered	Installations Covered	License Quantity	Licenses Consumed	Over/Under
Per-Named User	Per-Named User	6.5 (Windows),6.5 (Mac)	5	3	3	0
Per-Named User Upgrade	Per-Named User	6.5 (Windows),6.5 (Mac)	5	7	4	3
Per-User	Per-User	6.5 (Windows),6.5 (Mac)	9	25	7	18
	Total:		19	35	14	

For license compliance, the following fields are important:

- **Installations Covered:** Displays the number of installations covered by the entitlement.

  For Machine, OEM, and Per-Installation entitlements, each installation consumes a license. Therefore, for these entitlements, the number of covered installations equals the number of consumed licenses.

  For Per-User and Per-Named User entitlements, a user consumes one license regardless of the number of installations associated with the user. A user might have installations on five devices, but only one license is consumed. Therefore, for these entitlements, the number of covered installations can be greater than the number of consumed licenses.

  The total Installations Covered (for all entitlements) should equal the total Net Consumption in the License Consumption (Consumption Data Source: Inventory) panel. If it does not, some discovered product installations are not being covered by an entitlement. These installations are listed in the Unresolved Installations panel.
- **License Quantity:** Displays the number of licenses included in the entitlement, either through catalog products assigned to the entitlement or purchase summary records created for the entitlement.
- **Licenses Consumed:** Displays the number of licenses consumed by the covered installations.

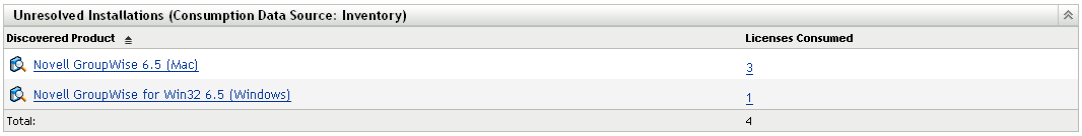
- **Over/Under:** Displays the license compliance status. 0 indicates that the consumed licenses (Licenses Consumed) equal the number of available licenses (License Quantity). A negative number indicates that consumed licenses exceed the number of available licenses (undercompliant). A positive number indicates that available licenses exceed the consumed licenses (overcompliant).

  If there are multiple entitlements, the licensed product's overall compliance status is determined as follows:

  - If any entitlement is undercompliant, the licensed product is assigned an undercompliant status ( ).
  - If no entitlements are undercompliant but an entitlement is overcompliant, the licensed product is assigned an overcompliant status ( ).
  - If all entitlements are compliant, the licensed product is assigned a compliant status ( ).

4.3.3 Unresolved Installations

This panel lists any discovered products with installations that are unable to consume an entitlement's license.



The following information is provided for each unresolved installation:

- **Discovered Product:** The discovered product that has unresolved installations. You can click the discovered product to view its details.
- **Licenses Consumed:** The number of installations that are unable to consume a license from one of the entitlements. You can click the number to view a list of the devices associated with the unresolved installations.

Unresolved installations can be caused by a variety of reasons. The following sections provide examples and solutions for unresolved installations.

Example 1

Product A includes the following two entitlements:

Entitlement	License Model	License Quantity	Discovered Products	Coverage
Version 6	Per-Named User	3	Product A Version 6	User 1, User 2, User 3
Version 7	OEM	5	Product A Version 7	Machine 1, Machine 2, Machine 3, Machine 4, Machine 5

An Inventory scan discovers installations of Version 6 on the machines of User 1, User 2, and User 4. The installation on User 4's machine is not covered by the Version 6 entitlement (because User 4 is not one of the named users) and it is not covered by the Version 7 entitlement (because it is the wrong version). Therefore, Product A has one unresolved installation of Version 6 because the installation cannot consume licenses from either of the entitlements.

There are several solutions to this situation, including the following:

- Modify the Version 6 entitlement so that it covers User 4.
- Create a Per-Installation entitlement that also covers Product A Version 6. User-based entitlements (Per-User and Per-Named User) and machine-based entitlements (OEM and Machine) are evaluated first, then any Per-Installation entitlements are checked. In this situation, the installation would be covered by the Per-Installation entitlement.

Example 2

Product A includes the following entitlements:

Entitlement	License Model	License Quantity	Discovered Products	Coverage
Version 6	Per-User	15	Product A Version 6	Any users
All	Per-Installation	40	Product A Version 6 Product A Version 7	Any installation

An Inventory scan discovers 26 installations of Version 6. The 26 installations belong to 22 users; 21 users are associated with one installation each, and 1 user is associated with 5 installations.

All 15 Per-User licenses are consumed, accounting for 19 of the installations (1 user with 5 installations and 14 users with 1 installation). The installations for users 16 through 22 cannot consume a license because there are no more licenses available, so the remaining 7 installations associated with those users fall through to the All entitlement. Because the All entitlement's licenses also cover Product A Version 6, the installations consume 7 of the 40 licenses for that entitlement.

If the All entitlement did not exist, the 7 installations would remain unresolved and Version 6 would be listed in the Unresolved Installations panel.

There are several solutions to this situation, including the following:

- Add 7 additional licenses to the Version 6 entitlement to cover the installations.
- Create a Per-Installation entitlement that also covers Product A Version 6. User-based entitlements (Per-User and Per-Named User) and machine-based entitlements (OEM and Machine) are evaluated first, then any Per-Installation entitlements are checked. In this situation, the installation would be covered by the Per-Installation entitlement.

Example 3

Product A includes the following entitlement:

Entitlement	License Model	License Quantity	Discovered Products	Coverage
Version 6	Machine	10	Product A Version 6	Machine1, Machine2, Machine3

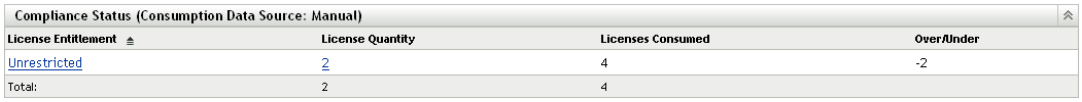
An Inventory scan discovers 5 installations of Product A Version 6 on Machine1 through Machine5. The installations on Machine4 and Machine5 are reported as unresolved installations because the two machines are not covered by the Version 6 entitlement.

There are several solutions to this situation, including the following:

- Modify the Version 6 entitlement so that it covers Machine4 and Machine5.
- Create a Per-Installation entitlement that also covers Product A Version 6. Machine-based entitlements (OEM and Machine) and user-based entitlements (Per-User and Per-Named User) are evaluated first, then any Per-Installation entitlements are checked. In this situation, the two installations would be covered by the Per-Installation entitlement.

4.3.4 Compliance Status (Consumption Data Source: Manual)

This panel displays the compliance status for all entitlements that use manually-entered installation data.



Compliance Status (Consumption Data Source: Manual)

License Entitlement	License Quantity	Licenses Consumed	Over/Under
Unrestricted	2	4	-2
Total:	2	4	

For license compliance, the following fields are important:

- **License Quantity:** Displays the number of licenses included in the entitlement, either through catalog products assigned to the entitlement or through purchase summary records created for the entitlement.
- **Licenses Consumed:** Displays the number of the entitlement's licenses that have been consumed. This number comes from the Quantity Consumed number assigned to the entitlement (entitlement > *General* tab > *Quantity Consumed*).
- **Over/Under:** Displays the license compliance status. 0 indicates that the consumed licenses (*Licenses Consumed*) equal the number of available licenses *(License Quantity*). A negative number indicates that consumed licenses exceed the number of available licenses (undercompliant). A positive number indicates that available licenses exceed the consumed licenses (overcompliant).

  If there are multiple entitlements, the licensed product's overall compliance status is determined as follows:

  - If any entitlement is undercompliant, the licensed product is assigned an undercompliant status ( ).
  - If no entitlements are undercompliant but an entitlement is overcompliant, the licensed product is assigned an overcompliant status ( ).
  - If all entitlements are compliant, the licensed product is assigned a compliant status ( ).

5 Generating Compliance Reports

ZENworks Asset Management includes a variety of reports that you can generate to view compliance and compliance-related data. In addition to viewing predefined reports, you can create custom reports and export reports to several file formats.

The compliance report information is combined with the software usage and contract management report information in Part VI, “Reports,” on page 171. The following list provides direct links to compliance report sections:

- Descriptions for all standard and custom reports: Chapter 28, “Standard and Custom Report Descriptions,” on page 173.
- How to run standard reports: Chapter 31, “Working with Standard Reports,” on page 183.
- How to create and generate custom reports: Chapter 32, “Working with Custom Reports,” on page 187
- How to run ZENworks Reporting Server reports: Chapter 33, “Working with ZENworks Reporting Reports,” on page 197.

6 Working with Licensed Products

A licensed product represents a software product whose license compliance you want to monitor. All of the information needed to determine a licensed product's compliance status (installations, purchased licenses, license usage agreements) is provided through the components associated with the licensed product (see Section 1.1, "License Compliance Components," on page 13).

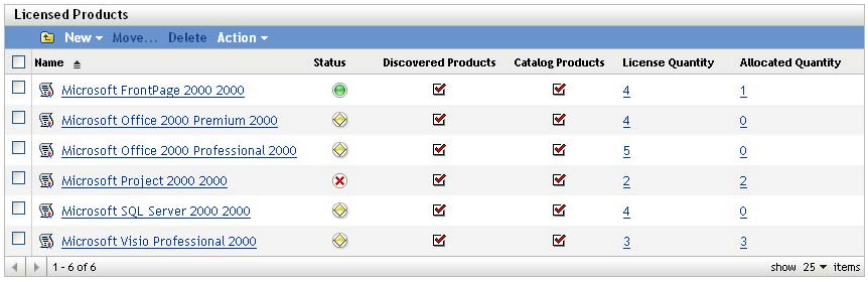
The following sections explain the tasks associated with managing licensed products:

- Section 6.1, "Viewing the Licensed Products List," on page 39
- Section 6.2, "Filtering the Licensed Products List," on page 40
- Section 6.3, "Creating a Licensed Product Folder," on page 41
- Section 6.4, "Refreshing Compliance Status," on page 41
- Section 6.5, "Creating a Licensed Product," on page 43
- Section 6.6, "Changing a Licensed Product's General Information," on page 46
- Section 6.7, "Adding Custom Fields to Licensed Products," on page 47
- Section 6.8, "Merging Licensed Products," on page 49
- Section 6.9, "Deleting a Licensed Product," on page 50
- Section 6.10, "Moving a Licensed Product," on page 50

6.1 Viewing the Licensed Products List

You can view a list of all of your licensed products. The list provides general information about each licensed product, such as its compliance status and whether or not discovered products and catalog products are associated with it.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. In the License Management tab, click *Licensed Products*.



The list provides the following information for each licensed product:

Name: Displays the name of the licensed product. You can click the name to display the licensed product's details.

Status: Indicates the product's license compliance status:

- Properly licensed: The number of licenses match the number of installations.
- overlicensed: There are more licenses than installations.
- underlicensed: There are more installations than licenses.
- Unknown: The compliance status has not been evaluated. If you don't want to wait for the next scheduled compliance status refresh, click *Action* > *Refresh Compliance Status*.

Click the status to view detailed compliance status information.

Discovered Products: Indicates that at least one discovered product is associated with the licensed product.

Catalog Products: Indicates that at least one catalog product is associated with the licensed product.

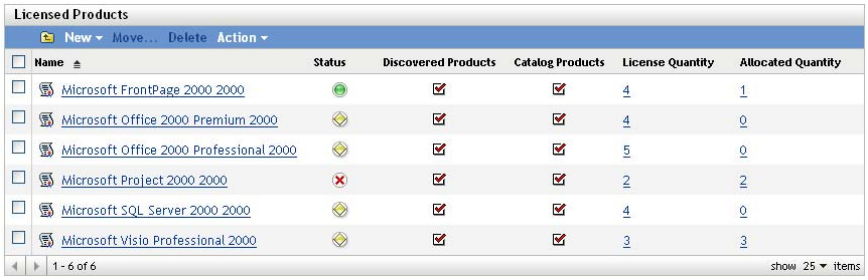
License Quantity: Displays the number of licenses associated with the licensed product through entitlements. Click the quantity number to manage (view, add, or remove) the product's entitlements.

Allocated Quantity: Displays the number of licenses that are allocated, either through allocations to specific devices or allocations to a department, site, or cost center. Click the number to display the allocation details.

6.2 Filtering the Licensed Products List

You can filter the Licensed Product list to display only the licensed products that meet certain criteria.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Licensed Products*.



3. In the Search panel (located next to the Licensed Products panel), specify the criteria to use for the filter. A product must match all criteria to be displayed.

   Name: Specify the text that the licensed product name (or folder name) must include. This is a partial match field that is case-insensitive. If the text you enter is included in any part of a licensed product name, the product matches the criteria.

   Type: Select whether you want to match folders, licensed products, or both.

   Manufacturer: Select a specific manufacturer, or select *Any* to match any manufacturers.

   Reconciliation Status: Select one of the following to match:

   - *Any*: Ignore the reconciliation status. Match any licensed products.
   - *Without Catalog Products*: Match licensed products that don't have any catalog products, but have discovered products.

- *Without Discovered Products*: Match licensed products that don't have any discovered products, but have catalog products.
- *Without Any Products*: Match licensed products that don't have any catalog products and discovered products.
- *With Catalog and Discovered Products*: Match licensed products that have both catalog products and discovered products.

Allocation Status: Select whether to match licensed products with allocations, without allocations, or both.

Compliance Status: Select one of the following to match:

- *Any*: Ignore the compliance status. Match any licensed products.
- *Over*: Match licensed products that are overlicensed; there are more licenses than installations.
- *Under*: Match licensed products that are underlicensed; there are more installations than licenses.
- *Properly Licensed*: Match licensed products that have the same number of licenses and installations.
- *Not Evaluated:* Match licensed products whose compliance status has not been calculated yet.
- *Evaluated*: Match licensed products whose compliance status is calculated (overlicensed, underlicensed, or properly licensed).

Include Subfolders: Select this option to search the current folder and its subfolders.

4 Click *Search* to apply the search criteria and filter the list.

6.3 Creating a Licensed Product Folder

You can create folders in the Licensed Products list to better organize your licensed products. All folders are displayed at the top of the list.

1 In ZENworks Control Center, click *Asset Management* > *License Management* > *Licensed Products*.

2 In the Licensed Products panel, click *New* > *Folder* to display the New Folder dialog box.

3 Fill in the following fields:

Name: Specify a name for the folder. The name must be unique among all other folders and licensed products at the same level.

Folder: Browse for and select the folder in which to place the new folder.

Description: Specify any optional information to identify the folder.

4 Click *OK* to create the folder.

6.4 Refreshing Compliance Status

A licensed product's compliance status can change if new installations are discovered or new licenses are purchased. The following sections explain when automatic refreshes occur, how to manually trigger a refresh, and how to find out when the last scheduled refresh occurred.

- Section 6.4.1, "Automatically Refreshing Status," on page 42
- Section 6.4.2, "Manually Triggering a Refresh," on page 42
- Section 6.4.3, "Viewing Refresh Details," on page 42

6.4.1 Automatically Refreshing Status

The compliance status for all licensed products is automatically refreshed at the following times:

- When you import purchase records. This ensures that a product's compliance status immediately reflects any newly purchased licenses.
- Each day at the time specified for the compliance engine's refresh schedule (see Chapter 3, "Configuring Compliance Settings," on page 27). This ensures that a product's compliance status reflects any changes to the installation count for its discovered products.

In addition, the compliance status for an individual product is automatically refreshed when the following actions occur on the product:

- Creating or deleting an entitlement.
- Adding, modifying, or deleting any entitlement entry that affects license quantity or installation quantity. This includes purchase records, purchase record summaries, catalog products, discovered products, and software collections.
- Marking a discovered product installation (associated with an entitlement) as ignored.

6.4.2 Manually Triggering a Refresh

You can manually trigger a refresh of the compliance status for all licensed products. You cannot manually trigger a refresh of an individual licensed product.

1. In ZENworks Control Center, click *Asset Management* > *License Management* to display the License Management page.
2. Click *Licensed Products* to display the Licensed Products page.

   A compliance refresh can also be triggered from the Discovered Products page.
3. In the Licensed Products panel, click *Actions* > *Refresh Compliance Status*.

6.4.3 Viewing Refresh Details

You can see information about the latest refresh above the menu bar of both the Licensed Products page and Discovered Products page. This information includes the following:

- The last time a compliance refresh was started and ended
- What initiated the refresh
- Whether it was a refresh of all products or a single product

The *Compliance Status* tab of the Licensed Product page also shows the time the license was last refreshed. In addition, clicking *License Management Reports* > *Software Compliance* > *Compliance Report* displays a column called *More Recent Recalc* that indicates if a license has been refreshed more recently than the last full refresh of all licenses.

6.5 Creating a Licensed Product

There are two methods you can use to create a licensed product:

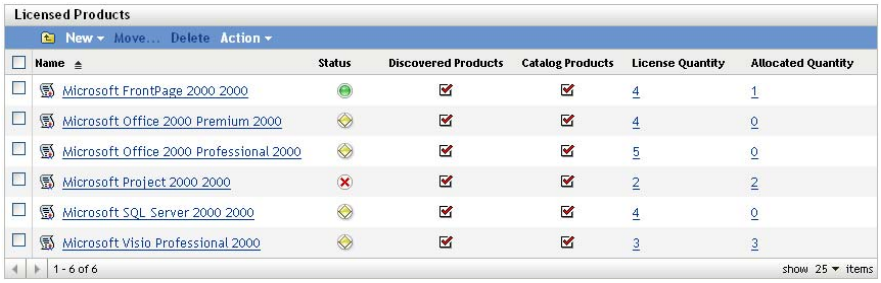
- You can manually create a licensed product. You then need to create the licensed product's entitlements and add catalog products and discovered products.
- You can use the Auto-Reconcile Wizard to create a licensed product from a discovered product. During the process, you create an entitlement and reconcile any catalog products (identified by the wizard as possible matches for the licensed product) to the licensed product. The wizard can create multiple licensed products at one time.

Refer to the following sections for instructions:

- Section 6.5.1, "Manually Creating a Licensed Product," on page 43
- Section 6.5.2, "Creating a Licensed Product from a Discovered Product," on page 44

6.5.1 Manually Creating a Licensed Product

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Licensed Products*.



3. Click *New* > *Licensed Product* to launch the Create New Licensed Product Wizard.
4. On the General Information page, fill in the following fields:

   Manufacturer (Optional): The manufacturer of the product.

   Licensed Product (Required): The name of the product.

   Version (Optional): The product version.

   Notes (Optional): Specify any notes.
5. Click *Next*, review the information on the New Licensed Product Summary page, then click *Finish* to add the product to the Licensed Products list.
6. Configure the licensed product by completing these additional tasks:
   - Create one or more entitlements. See Section 7.2, "Creating an Entitlement," on page 52.
   - Add catalog products to the entitlements. See Section 7.3, "Adding Catalog Products," on page 56.
   - Add discovered products to the entitlements. See Section 7.5, "Adding Discovered Products," on page 59.
   - Specify the users or devices covered by the entitlements. See Section 7.6, "Specifying User and Device Coverage," on page 61.

6.5.2 Creating a Licensed Product from a Discovered Product

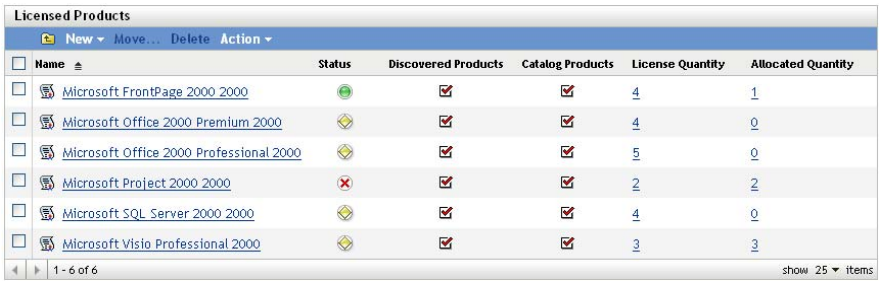
The Auto-Reconcile Wizard creates licensed products from discovered products. The wizard does the following:

- Lets you select the discovered product from which you want to create a licensed product. You can select multiple discovered products at one time to create multiple licensed products.
- Creates a licensed product with the same name as the discovered product.
- Creates an entitlement for the licensed product. You specify the entitlement's description and license model. If you are creating multiple licensed products, the same entitlement (description and license model) is created for each product.
- Adds the discovered product to the entitlement.
- Identifies any catalog products that might match the licensed product. Lets you choose whether or not to add the catalog products to the licensed product's entitlement.

When you run the Auto-Reconcile Wizard, you should select discovered products that require the same entitlement license model. As mentioned above, the wizard applies the same entitlement to all licensed products created during the process. If you create a licensed product from a discovered product that does not fit the entitlement license model, you need to manually edit the licensed product's entitlement and change its license model.

To create licensed products from discovered products:

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Licensed Products*.



3. In the Licensed Products panel, click *Action* > *Auto-Reconcile: Create Licensed Products* to launch the Auto-Reconcile Wizard. Complete the wizard by using information from the following table to fill in the fields:

Wizard Page	Details
Discovered Product Filter	You can filter the list of discovered products so that you have a smaller list of products from which to select. **Any:** Select this option to ignore the filter; all discovered products are displayed. **Products Specified Below:** Select this option to filter the discovered products list. Fill in the following fields: ◆ *Manufacturer*: Click *Select*, then select one of the listed manufacturers. Or, click *Search* and specify the text string that will display the manufacturers. ◆ *Product*: Specify a text string that will display the products you want. You can use an asterisk (*) as a wildcard. For example, if you want to display all discovered products from manufacturers that start with M, enter M* in the *Manufacturer* field and * in the *Product* field.
Select Licensed Products to Create	This page lists all the discovered products that meet the filter criteria defined on the previous page. The first column displays the name of the licensed product that will be created. The second column displays the discovered product that will be associated with the licensed product. The third column displays any catalog products that the wizard thinks are candidates for association with the licensed product. By default, all licensed products are selected and will be created. You can deselect any licensed products you don't want created. You can also deselect any catalog products that you don't want associated with a licensed product.
Destination Folder	Lets you specify where in the Licensed Products folder hierarchy you want to place the new licensed products. The field defaults to the current folder (the folder from which you launched the Auto-Reconcile Wizard). To specify another folder, click to browse for and select the folder. The folder must already exist; you cannot use the selection dialog box to create a new folder.

Wizard Page	Details
License Entitlements	Every licensed product must have at least one entitlement. This page lets you specify a description and license model for the entitlement that will be added to the licensed products you are creating. **Description:** Add a description for the license entitlement. The entitlement description serves as a name for the entitlement and identifies it in the licensed product's entitlement list. The description can reflect the product name and version, the license model, the license type, or any other information that makes sense to you. **License Model:** Select one of the following license models: ◆ **Per-Installation:** Each installation of the entitlement's discovered products consumes a license. ◆ **OEM:** For each covered device, a license is consumed whether or not any of the entitlement's discovered products are installed on the device. You specify the devices covered by the entitlement. ◆ **Machine:** For each covered device, a license is consumed only if one of the entitlement's discovered products is installed on the device. You specify the devices covered by the entitlement. ◆ **Per-User:** Each user consumes a single license for any installations of the entitlement's discovered products, regardless of the number of installations. ◆ **Per-Named User:** Identical to the Per-User model, but you specify the users covered by the entitlement.
Auto-reconcile Create Summary	Review your data.

4 If you have not already done so, click *Finish* to create the licensed products and add them to the Licensed Products panel.

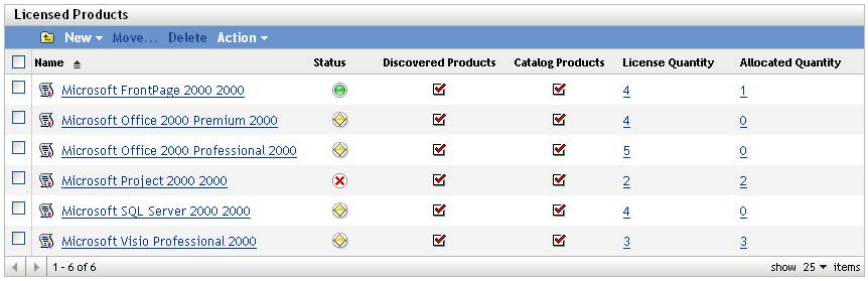
5 If necessary, configure the licensed product by completing these additional tasks:

- Specify the users or devices covered by the entitlement. See Section 7.6, "Specifying User and Device Coverage," on page 61.
- Add additional catalog products. See Section 7.3, "Adding Catalog Products," on page 56.
- Add additional discovered products. See Section 7.5, "Adding Discovered Products," on page 59.
- Create additional entitlements. See Section 7.2, "Creating an Entitlement," on page 52.

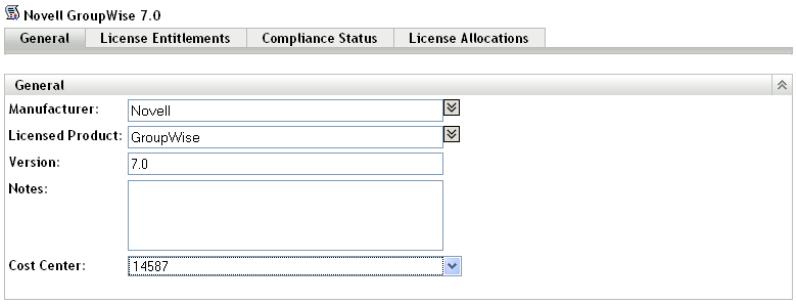
6.6 Changing a Licensed Product's General Information

A licensed product includes general information such as its manufacturer, product name, and version. You can modify this information as necessary. If you've created any custom fields (see Section 6.7, "Adding Custom Fields to Licensed Products," on page 47), you can modify those as well.

1 In ZENworks Control Center, click *Asset Management* > *License Management* > *Licensed Products* to display the Licensed Products page.



2 In the Licensed Products panel, click the licensed product whose general information you want to edit.



3 Modify the fields as needed:

Manufacturer: Select the product's manufacturer from the list or enter a new manufacturer.

Licensed Product: Select a name for the licensed product from the list or enter a new name.

Version: If the licensed product represents a specific version, specify the version. If not, leave the field empty.

Notes: Add any information you want to retain with the product.

Cost Center: This is a custom field added as an example. It is not included in the predefined general information. You can add as many custom fields as you'd like. For information, see Section 6.7, "Adding Custom Fields to Licensed Products," on page 47.

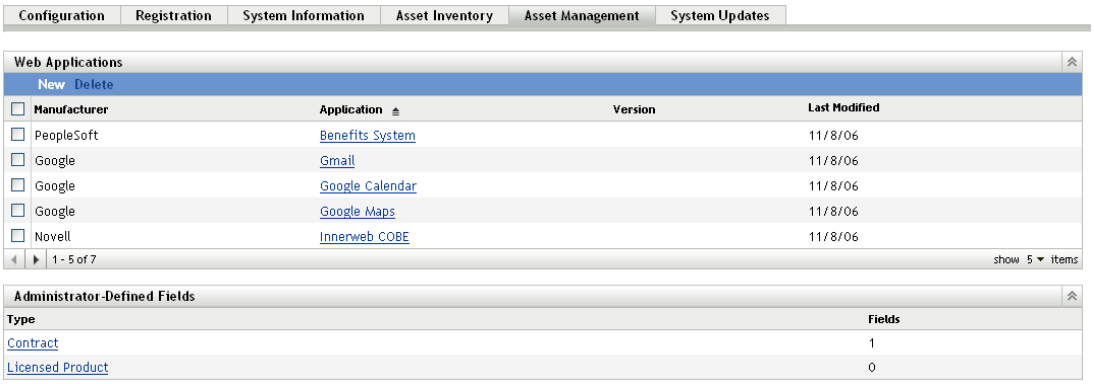
6.7 Adding Custom Fields to Licensed Products

A licensed product includes predefined fields for recording the product's manufacturer, name, and version. These fields are displayed on the licensed product's General page.

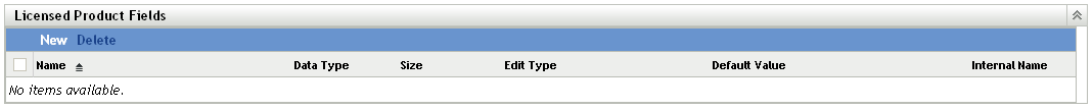
You can create custom fields to record additional information for licensed products. When you create a custom field, it is added to each licensed product's General page. It is also included in the Create New Licensed Product Wizard so that you can populate the field during creation of licensed products.

To create custom fields:

1 In ZENworks Control Center, click *Configuration*, then click the *Asset Management* tab.



2 In the Administrator-Defined Fields panel, click *Licensed Product* to display the Licensed Product Fields page.



3 Click *New* to launch the New Administrator-Defined Field Wizard. Complete the wizard by using information from the following table to fill in the fields:

Wizard Page	Details
General Information	Fill in the following fields: **Type:** Filled in by default depending on the type of field you selected. **Name:** Specify the field label. This field is required. **Default Value:** Specify the default value of the field. The default value must be valid for the field's data type. For example, the default cannot be **A** if the data type is *Integer*. **Data Type:** Select the type of data allowed in the field: *Character, Integer, Decimal*, or *Date*. **Size:** Specify the maximum number of alphanumeric characters allowed in the field. This applies only to character-type fields. **Edit Type:** Determines how you enter values into the field. There are three options you can select: ◆ **Edit:** Allows you to enter a value or edit the default value. ◆ **List:** Allows you to select a value from a list of values. ◆ **Combo:** Allows you to select a value from a list of values or enter a new value. **Edit Mask:** Select a format from the *Edit Mask* field list to restrict how a value is entered. The choices are phone, time, and currency. This applies only to character-type fields.

Wizard Page	Details
Choice List Values	This page appears if you chose *List* or *Combo* as the Edit Type. To create a list of choices: 1. Specify a value in the *Choice List Values* field. 2. Click *Add*. Repeat for additional values. **Edit:** Select a value and click *Edit* to change it. **Remove:** Select a value and click *Remove* to delete it. **Import:** Click *Import* to open the Import Choice List Values dialog box where you can specify a file to import.
Field Summary	Review the data. Use the *Back* button to go back to a previous page to edit any fields.

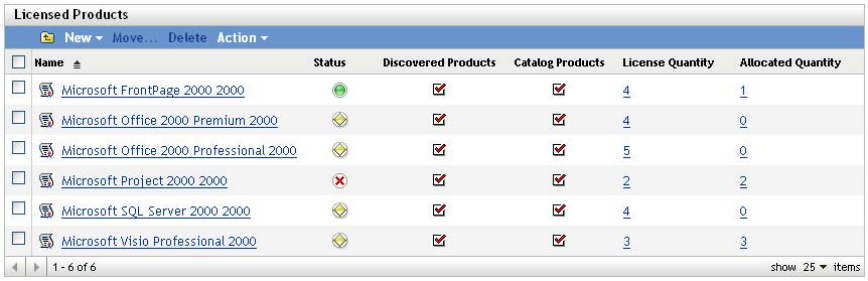
4 Click *Finish* to create the new administrator-defined field.

The field is added to each licensed product's General page.

6.8 Merging Licensed Products

You can merge two or more licensed products into one licensed product. When you do so, you select one of the licensed products as the target product and the entitlements for each of the products are moved into the target product. All merged products, other than the target product, are deleted after the merge.

1 In ZENworks Control Center, click *Asset Management* > *License Management* > *Licensed Products* to display the *Licensed Products* page.



2 In the Licensed Products panel, select the licensed products you want to merge.

3 Click *Action* > *Merge Licensed Products*.

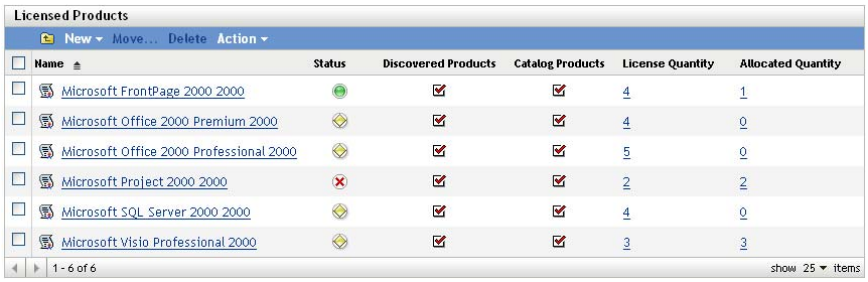
4 In the *Target Product* list, select the licensed product into which all the selected products will be merged, then click *OK*.

The products are merged. The target product is displayed in the Licensed Products list and all other merged products are deleted.

6.9 Deleting a Licensed Product

You can remove a licensed product from the Licensed Product list by deleting it. Only the licensed product is deleted; any catalog products and discovered products associated with the licensed product are not deleted.

1 In ZENworks Control Center, click *Asset Management* > *License Management* > *Licensed Products* to display the Licensed Products page.



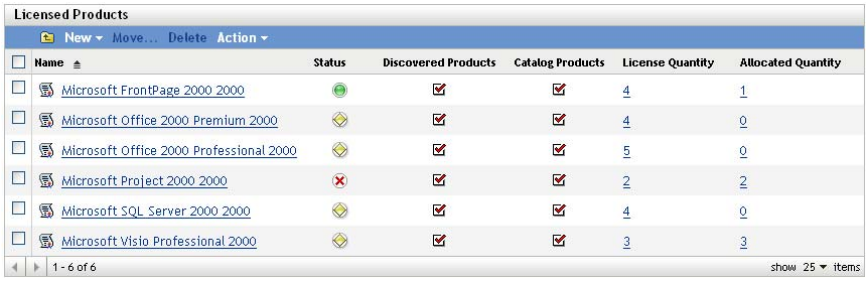
2 In the Licensed Products panel, select the licensed product you want to delete.

3 Click *Delete*, then click *OK* to confirm the deletion.

6.10 Moving a Licensed Product

You can move a licensed product from one folder to another in the Licensed Product list.

1 In ZENworks Control Center, click *Asset Management* > *License Management* > *Licensed Products* to display the Licensed Products page.



2 In the Licensed Products panel, select the licensed product you want to move.

3 Click *Move* to display the Move Licensed Product(s) dialog box.

4 Browse for and select the target folder, then click *OK*.

7 Working with Entitlements

A license entitlement typically represents a license agreement for a licensed product. It includes such agreement details as the license type (full, upgrade, maintenance, and so forth) and the license model (Per-User, Per-Installation, OEM, Machine, and so forth). Based on the license model, it also specifies which users or machines are covered by the entitlement.

Some licensed products might only have one entitlement. For example, you might have a product whose installations all fall under a full license, Per-Installation agreement.

Other products, however, might have multiple entitlements. For example, you might have a product for which you have OEM-licensed installations and Per-User licensed installations. To correctly cover both license agreements, you would need two entitlements with different license models and user/machine coverage. A second example might be a product that includes a full license agreement and a version upgrade agreement.

The following sections explain the tasks associated with managing entitlements:

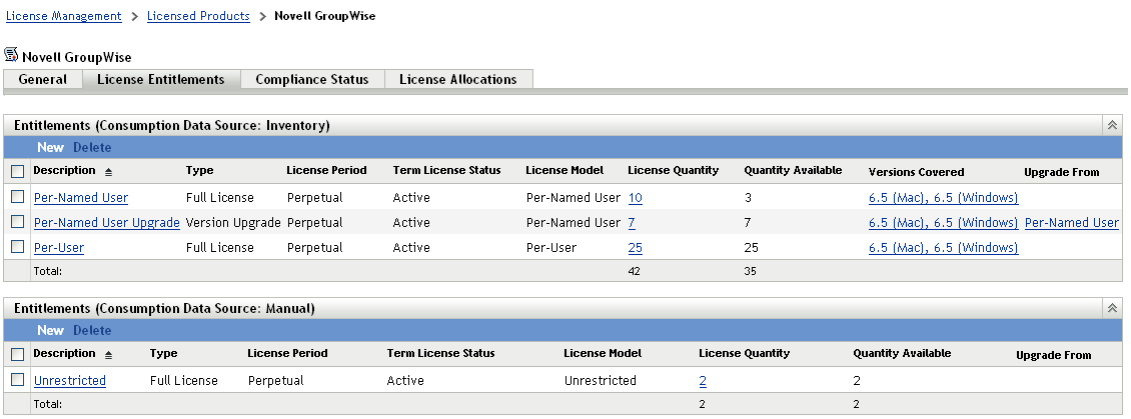
- Section 7.1, "Viewing a Licensed Product's Entitlements," on page 51
- Section 7.2, "Creating an Entitlement," on page 52
- Section 7.3, "Adding Catalog Products," on page 56
- Section 7.4, "Adding Purchase Summary Records," on page 58
- Section 7.5, "Adding Discovered Products," on page 59
- Section 7.6, "Specifying User and Device Coverage," on page 61
- Section 7.7, "Adding Contracts and Documents," on page 64

7.1 Viewing a Licensed Product's Entitlements

You can view the list of entitlements for a licensed product. The list provides general information about each entitlement, such as its license type, license model, license quantity, and discovered products covered.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Licensed Products*.
3. In the Licensed Product panel, click the licensed product whose entitlements you want to view.
4. Click the *License Entitlements* tab

   The License Entitlements page consists of two panels: Entitlements (Consumption Data Source: Inventory) and Entitlements (Consumption Data Source: Manual)



The Entitlements (Consumption Data Source: Inventory) panel is used to manage the entitlements that pull their product installation data from the Inventory data collected during scans of devices in the Management Zone.

The Entitlements (Consumption Data Source: Manual) panel is used to manage entitlements that require product installation data to be manually entered into the entitlement.

These panels display the following details:

Description: The name of the entitlement. Click the name to display the entitlement's details.

Type: The entitlement type: *Full*, *License/Maintenance*, or *Version Upgrade*.

License Period: Indicates if the license period is perpetual or for a specific term.

Term License Status: Indicates if the license is active or expired.

License Model: The type of license model.

License Quantity: The total number of licenses included in the entitlement, either through catalog products assigned to the entitlement or purchase summary records created for the entitlement. Click the quantity number to manage (view, add, or remove) the catalog products and purchase summary records that are contributing to the total license quantity.

Quantity Available: The number of available licenses. This is calculated by subtracting licenses consumed from the total number of licenses.

Versions Covered: This column is included only in the Inventory panel. It shows the discovered products, listed by version, that are covered by the entitlement. Click a version to manage (view, add, or remove) the entitlement's covered product versions.

Upgrade From: If the entitlement type is *Version Upgrade*, this column displays the entitlement from which it is upgraded.

7.2 Creating an Entitlement

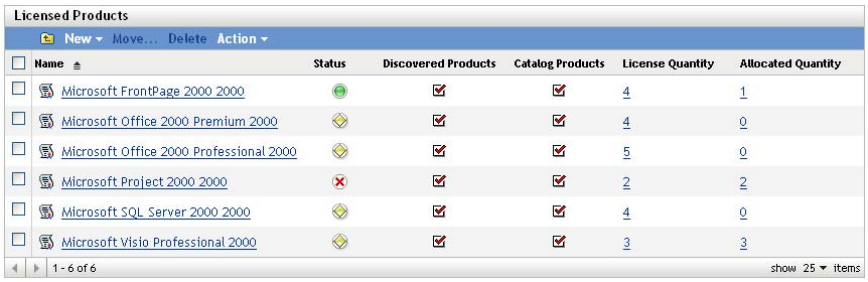
There are two categories of entitlements that you can create: Inventory entitlements and manual entitlements. Inventory entitlements pull the installation data for their discovered products from the Inventory database. Manual entitlements require you to manually enter the installation data.

- Section 7.2.1, "Creating an Inventory Entitlement," on page 53
- Section 7.2.2, "Creating a Manual Entitlement," on page 55

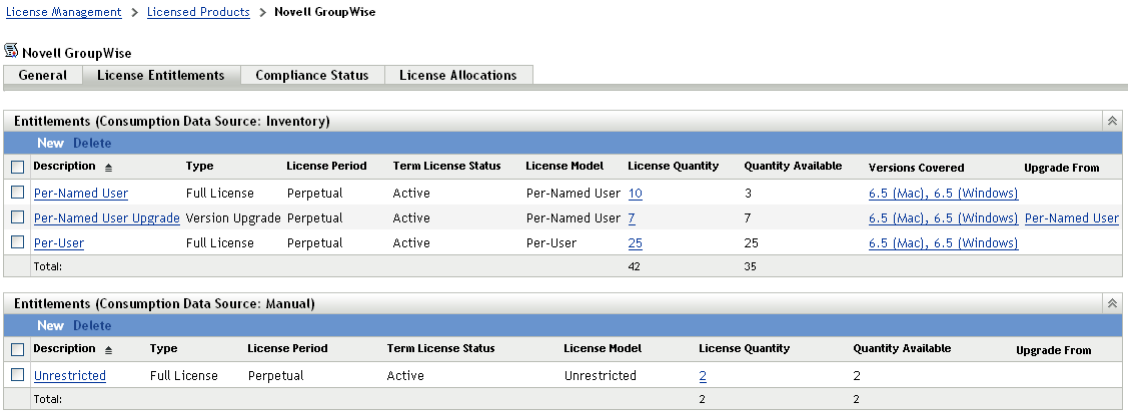
7.2.1 Creating an Inventory Entitlement

The following steps explain how to create entitlements that use Inventory data as their source of discovered product installation data. If you need to create entitlements where you manually enter the installation data, see Section 7.2.2, "Creating a Manual Entitlement," on page 55.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Licensed Products*.



3. Click the product for which you want to create an entitlement.
4. Click the *License Entitlements* tab.



5. In the Entitlements (Consumption Data Source: Inventory) panel, click *New* to launch the Create New Entitlement Wizard. Complete the wizard by using the information in the following table:

Wizard Page	Details
License Model	The license model determines how license consumption is calculated for eligible installations. Select one of the following license models: ◆ **Per-Installation:** Each installation of the entitlement's discovered products consumes a license. ◆ **OEM:** For each covered device, a license is consumed whether or not any of the entitlement's discovered products are installed on the device. You specify the devices covered by the entitlement. ◆ **Machine:** For each covered device, a license is consumed only if one of the entitlement's discovered products is installed on the device. You specify the devices covered by the entitlement. ◆ **Per-User:** Each user consumes a single license for any installations of the entitlement's discovered products, regardless of the number of installations. ◆ **Per-Named User:** Identical to the Per-User model, except you specify the users covered by the entitlement.
Entitlement Type	Select the type of license represented by the entitlement: ◆ **Full License:** Entitles the user to new product installations (as opposed to upgrade installations). ◆ **Version Upgrade:** Entitles the user to upgrade a previous product version to the new version. This option is not displayed when creating the first entitlement for a licensed product. ◆ **License/Maintenance:** Entitles the user to new product installations and subsequent maintenance versions.
Entitlement Upgrade	This page is displayed only if you selected Version Upgrade as the entitlement type. Select the entitlement that is being upgraded by this entitlement.
General Information	Fill in the following fields: **Description:** Specify a description for the entitlement. For example, *Product A OEM License* or *Product A Version 6 Per-User License*. **Platform:** Select the product's platform from the list. **License Period:** The effective time period for the license. Select *Perpetual* if the license does not include a termination date. Select *Term* if the license is for a fixed period, then click the calendar icons to select the start and end dates. **Virtual Machine Use Rights:** Specify any software use rights that apply when using the product in a virtual machine. **Notes:** Provide any notes.
New Entitlement Summary	Review the data.

6 If you have not already done so, click *Finish* to create the entitlement and add it to the Entitlements panel.

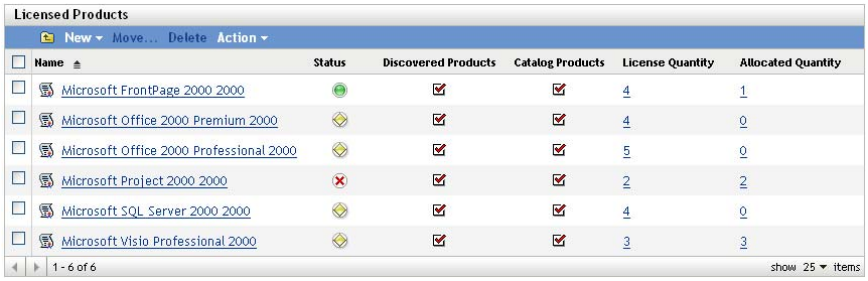
7 Configure the entitlement by doing the following:

- Add information about purchased licenses. See Section 7.3, "Adding Catalog Products," on page 56 and Section 7.4, "Adding Purchase Summary Records," on page 58.

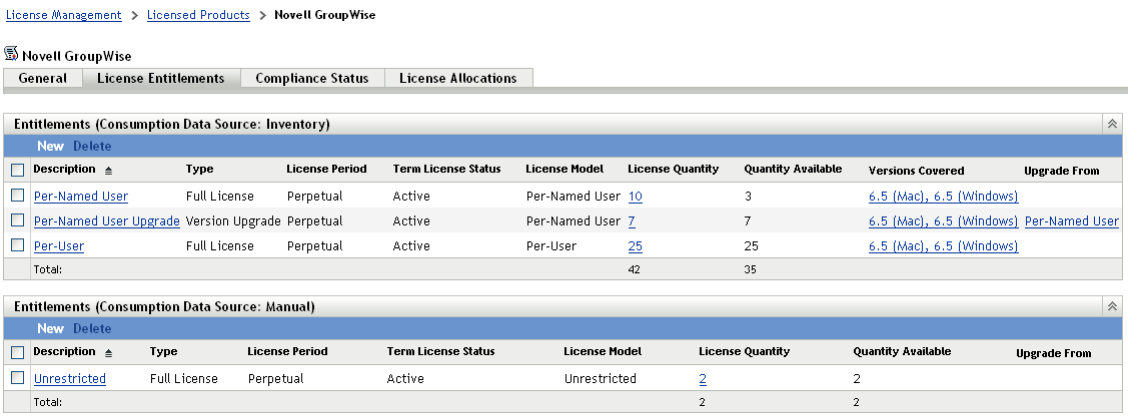
- Add information about installations. See Section 7.5, "Adding Discovered Products," on page 59.
- Specify the users or devices covered by the entitlement. See Section 7.6, "Specifying User and Device Coverage," on page 61.

7.2.2 Creating a Manual Entitlement

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Licensed Products*.



3. Click the product for which you want to create an entitlement.
4. Click the *License Entitlements* tab.



5. In the Entitlements (Consumption Data Source: Manual) panel, click *New* to launch the Create New Entitlement Wizard. Complete the wizard by using the information in the following table:

Wizard Page	Details
License Model	Choose one of the predefined license models. These license models are intended to match the license models most commonly used in license agreements. If your license model is not represented, select *Other* and specify the license model.

Wizard Page	Details
Entitlement Type	Select the type of license represented by the entitlement: ◆ **Full License:** Entitles the user to new product installations (as opposed to upgrade installations). ◆ **Version Upgrade:** Entitles the user to upgrade a previous product version to the new version. This option is not displayed when creating the first entitlement for a licensed product. ◆ **License/Maintenance:** Entitles the user to new product installations and subsequent maintenance versions.
Entitlement Upgrade	This page is displayed only if you selected Version Upgrade as the entitlement type. Select the entitlement that is being upgraded by this entitlement.
General Information	Fill in the following fields: **Description:** Specify a description for the entitlement. For example, *Product A OEM License* or *Product A Version 6 Per-User License*. **Platform:** Select the product's platform from the list. **License Period:** The effective time period for the license. Select *Perpetual* if the license does not include a termination date. Select *Term* if the license is for a fixed period, then click the calendar icons to select the start and end dates. **Quantity Consumed:** Specify the number of installations you want to count against the entitlement. **Virtual Machine Use Rights:** Specify any software use rights that apply when using the product in a virtual machine. **Notes:** Provide any notes.
New Entitlement Summary	Review the data.

6 If you have not already done so, click *Finish* to create the entitlement and add it to the Entitlements panel.

7 Configure the entitlement by doing the following:

- Add information about purchased licenses. See Section 7.3, "Adding Catalog Products," on page 56 and Section 7.4, "Adding Purchase Summary Records," on page 58.
- Add information about installations. See Section 7.5, "Adding Discovered Products," on page 59.
- Specify the users or devices covered by the entitlement. See Section 7.6, "Specifying User and Device Coverage," on page 61.

7.3 Adding Catalog Products

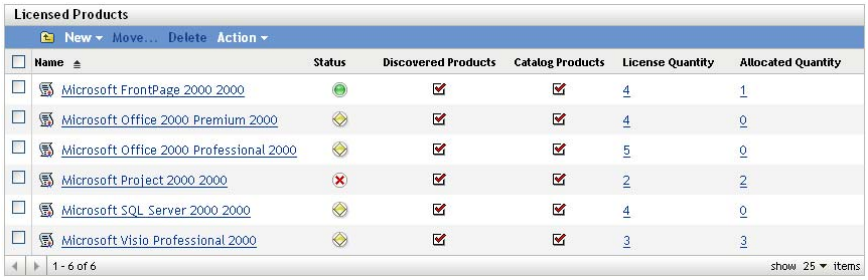
To populate a licensed product with the number of licenses you've purchased for the product, you add catalog products to the licensed product's entitlements. If you don't have catalog products, you can create purchase summary records instead (see Section 7.4, "Adding Purchase Summary Records," on page 58).

There are two ways to add a catalog product to an entitlement:

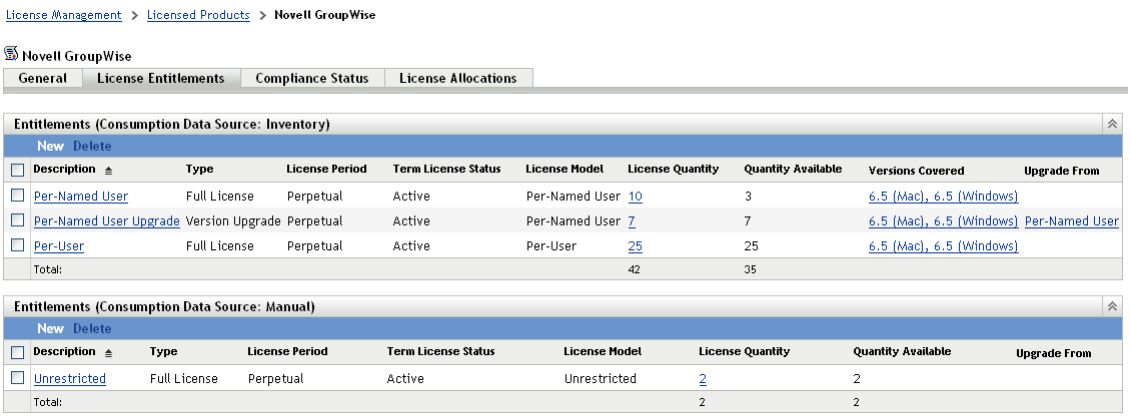
- Section 7.3.1, "Editing an Entitlement to Add Catalog Products," on page 57
- Section 7.3.2, "Using the Catalog Products List to Add Catalog Products," on page 58

7.3.1 Editing an Entitlement to Add Catalog Products

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Licensed Products*.



3. Click the licensed product with the entitlement.
4. Click the *License Entitlements* tab.

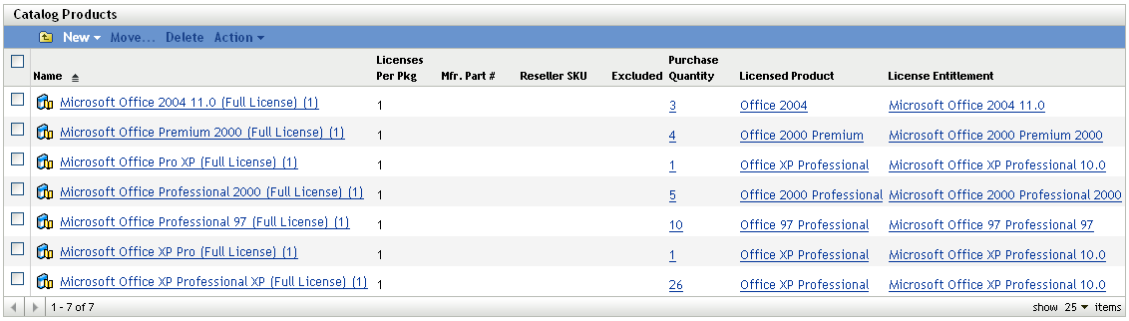


5. In the Entitlements panel, click the entitlement to which you want to add catalog products.
6. Click the *Proof of Ownership* tab.
7. In the Catalog Products panel, click *Add*.
8. Select the desired catalog products, then click *OK* to add them to the Catalog Products panel.

   The Catalog Products panel displays each catalog product's Purchase Quantity, which is the number of units of the catalog product that you've purchased (according to the purchase records). It also displays the License Quantity, which is the total number of licenses included in the purchased units.

7.3.2 Using the Catalog Products List to Add Catalog Products

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Catalog Products*.



3. Select the catalog products that you want to add to an entitlement.
4. Click *Action* > *Add to Licensed Product* to launch the Add Catalog Products to Licensed Product Wizard. Complete the wizard by using the information in the following table:

Wizard Page	Details
Licensed Product	Click to browse for and select the licensed product that contains the entitlement to which you want to add the catalog products.
License Entitlement	Select the entitlement to which you want to add the catalog products,
Summary	Review the data.

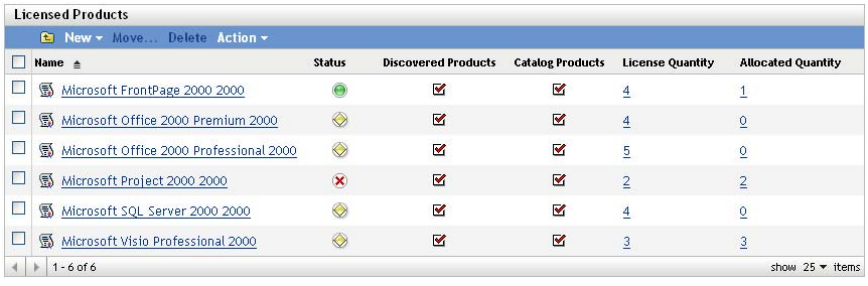
5. If you have not already done so, click *Finish* to add the catalog products to the entitlement.

   In the Catalog Products list, each catalog product you added displays the licensed product and entitlement with which it is now associated.

7.4 Adding Purchase Summary Records

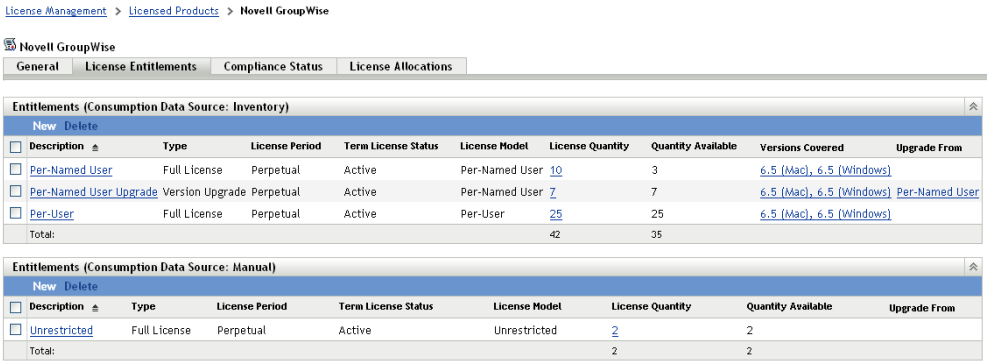
A purchase summary record lets you add licenses to an entitlement without requiring a catalog product or a purchase record.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Licensed Products*.



3. Click the licensed product with the entitlement.

4 Click the *License Entitlements* tab.



5 In the Entitlements panel, click the entitlement to which you want to add purchase summary records.

6 Click the *Proof of Ownership* tab.

7 In the Purchase Summary Records panel, click *New*.

8 On the General Information page, fill in the following fields:

Description: Specify a description or name to identify the record.

License Quantity: Specify the number of purchased licenses.

Total Cost: Specify the total cost of the licenses. This information is optional.

Notes: Specify any optional notes to identify the record.

9 Click *Next* to display the Summary page.

10 Click *Finish* to create the purchase summary record.

7.5 Adding Discovered Products

To associate product installations with a licensed product, you add discovered products to the licensed product's entitlements.

Discovered products can only be added to Inventory entitlements. Manual entitlements do not use discovered products.

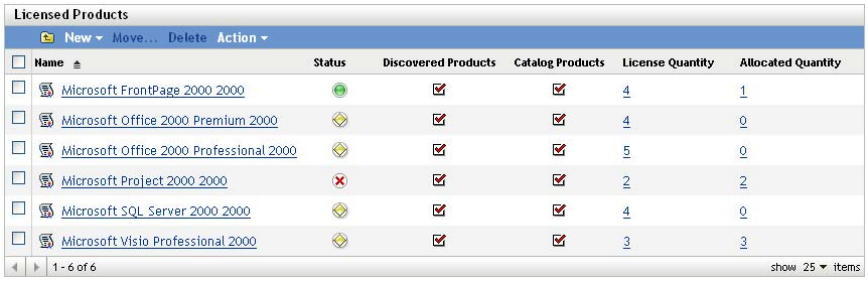
There are two ways to add a discovered product to an entitlement:

- Section 7.5.1, "Editing an Entitlement to Add Discovered Products," on page 59
- Section 7.5.2, "Using the Discovered Products List to Add Discovered Products," on page 60

7.5.1 Editing an Entitlement to Add Discovered Products

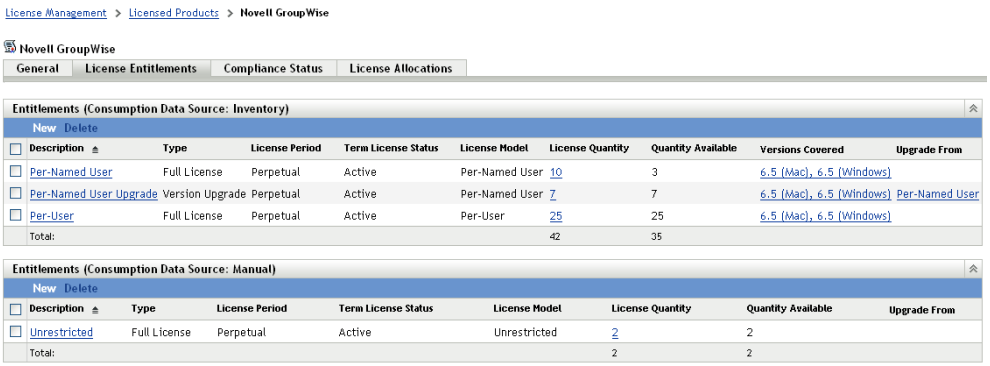
1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Licensed Products*.



3 Click the licensed product with the entitlement.

4 Click the *License Entitlements* tab.



5 In the Entitlements panel, click the entitlement to which you want to add discovered products.

6 Click the *Coverage* tab.

7 In the Discovered Product Versions Covered panel, click *Add* > *Installed Discovered Products* if you only want to choose from discover products that are installed in your Management Zone.

or

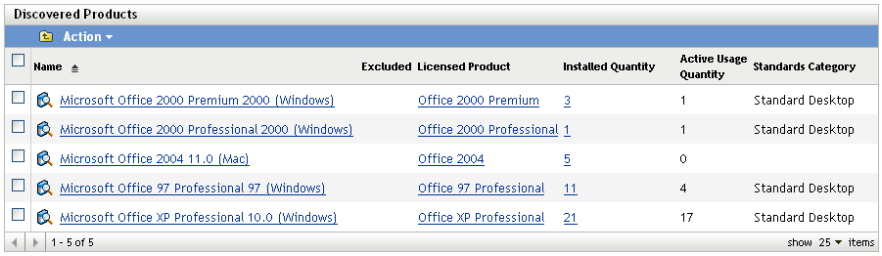
Click *Add* > *Any Discovered Product* to see all discovered products contained in the ZENworks Knowledgebase.

8 Select the desired discovered products, then click *OK* to add them to the Discovered Product Versions Covered panel.

7.5.2 Using the Discovered Products List to Add Discovered Products

1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Discovered Products*.



3 Select the discover products that you want to add to an entitlement.

4 Click *Action* > *Add to Licensed Product* to launch the Add Discovered Products to Licensed Product Wizard. Complete the wizard by using the information in the following table:

Wizard Page	Details
Licensed Product	Click to browse for and select the licensed product that contains the entitlement to which you want to add the discovered products.
License Entitlement	Select the entitlement to which you want to add the discovered products.
Summary	Review the data.

5 If you have not already done so, click *Finish* to add the discovered products to the entitlement.

In the Discovered Products list, the discovered product displays the licensed product with which it is now associated.

7.6 Specifying User and Device Coverage

When you have an entitlement that uses an OEM, Machine, Per-Named User, or Per-User license model, you must specify which devices or users are covered by the entitlement. The following sections provide instructions:

- Section 7.6.1, "Adding Covered Devices to OEM and Machine Entitlements," on page 61
- Section 7.6.2, "Adding Covered Users to Per-Named User Entitlements," on page 62
- Section 7.6.3, "Excluding Users from Per-User Entitlements," on page 63

7.6.1 Adding Covered Devices to OEM and Machine Entitlements

When you create an entitlement with an OEM or Machine license model, you must specify the devices that you want covered by the entitlement. Only the covered devices are eligible to consume the entitlement's licenses.

1 If you are on the licensed product's License Entitlements page, skip to Step 2. Otherwise, open the page:

1a In ZENworks Control Center, click the *Asset Management* tab.

1b On the License Management page, click *Licensed Products*.

1c Click the product whose entitlement coverage you want to modify.

1d Click the *License Entitlements* tab.

2 In the Entitlements panel, click the OEM or Machine entitlement.

3 Click the *Coverage* tab.

4 In the Covered Machines panel, click *Add* > *Devices with Product Installed* if you only want to see devices that have the product installed.

or

Click *Add* > *Any Devices* if you want to see all devices.

The Search for Device dialog box is displayed. Because your system might include many devices, the Search for Device dialog box lets you limit the displays to only those devices that meet your defined criteria.

5 Use the Search Criteria to specify which devices you want to display. If you don't want to limit the search results, skip to Step 6.

Device Type: Select the types of device (managed, inventoried, migrated) you want included in the search results.

Device Filter: The filters let you define specific criteria that a device must meet to be included in the search results. Use the *Add Filter*, *Add Filter Se*t, and *Insert Filter* options to create the search criteria.

Maximum Number of Devices to Display: Specify the maximum number of devices to include in the search results.

6 In the *Columns to Display in Search Results* list, Ctrl+click and Shift+click to select the columns you want displayed in the search results.

7 Click *Search* to display the search results.

8 Select the devices you want to add to the Covered Machines list, then click *OK*.

7.6.2 Adding Covered Users to Per-Named User Entitlements

When you create an entitlement with a Per-Named User license model, you must specify the users that you want covered by the entitlement. Only the covered users are eligible to consume the entitlement's licenses.

1 If you are on the licensed product's License Entitlements page, skip to Step 2. Otherwise, open the page:

1a In ZENworks Control Center, click the *Asset Management* tab.

1b On the License Management page, click *Licensed Products*.

1c Click the product whose entitlement coverage you want to modify.

1d Click the *License Entitlements* tab.

2 In the Entitlements panel, click the Per-Named User entitlement.

3 Click the *Coverage* tab.

4 In the Covered Users panel, click *Add* > *Users with Product Installed* if you only want to see users who have the product installed.

or

Click *Add* > *Any Users* if you want to see all users.

5 If you are selecting users from your authoritative user source, browse for and select the users you want to add to the Covered Users list, then click *OK*.

or

If you are selecting users from the Inventory data source, do the following:

5a Use the Search Criteria to specify which users you want to display. If you don't want to limit the search results, skip to Step 5b.

User Filter: The filters let you define specific criteria that a user must meet to be included in the search results. Use the *Add Filter*, *Add Filter Se*t, and *Insert Filter* options to create the search criteria.

Maximum Number of Users to Display: Specify the maximum number of users to include in the search results.

5b In the *Columns to Display in Search Results* list, Ctrl+click and Shift+click to select the columns you want displayed in the search results.

5c Click *Search* to display the search results.

5d Select the users you want to add to the Covered Users list, then click *OK*.

7.6.3 Excluding Users from Per-User Entitlements

When you create an entitlement with a Per-User license model, all users are covered by the entitlement. If necessary, you can exclude users. An excluded user does not consume a license even if a discovered product installation is associated with the user.

1 If you are on the licensed product's License Entitlements page, skip to Step 2. Otherwise, open the page:

1a In ZENworks Control Center, click the *Asset Management* tab.

1b On the License Management page, click *Licensed Products*.

1c Click the product whose entitlement coverage you want to modify.

1d Click the *License Entitlements* tab.

2 In the Entitlements panel, click the Per-User entitlement.

3 Click the *Coverage* tab.

4 In the Covered Users panel, click *Add* > *Users with Product Installed* if you only want to see users who have the product installed.

or

Click *Add* > *Any Users* if you want to see all users.

5 If you are selecting users from the authoritative user source, browse for and select the users you want to add to the Covered Users list, then click *OK*.

or

If you are selecting users from the Inventory data source, do the following:

5a Use the Search Criteria to specify which users you want to display. If you don't want to limit the search results, skip to Step 5b.

User Filter: The filters let you define specific criteria that a user must meet to be included in the search results. Use the *Add Filter*, *Add Filter Se*t, and *Insert Filter* options to create the search criteria.

Maximum Number of Users to Display: Specify the maximum number of users to include in the search results.

5b In the *Columns to Display in Search Results* list, Ctrl+click and Shift+click to select the columns you want displayed in the search results.

5c Click *Search* to display the search results.

5d Select the users you want to add to the Covered Users list, then click *OK*.

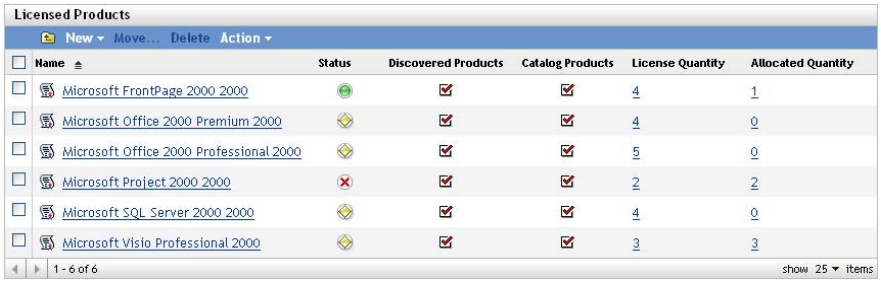
7.7 Adding Contracts and Documents

You can add contracts and documents to an entitlement to provide proof that you own the licenses associated with the entitlement.

The following instructions assume that you've already added contracts and uploaded documents to your Asset Management system. If not, see Part IV, "Contracts," on page 145 and Part V, "Documents," on page 163.

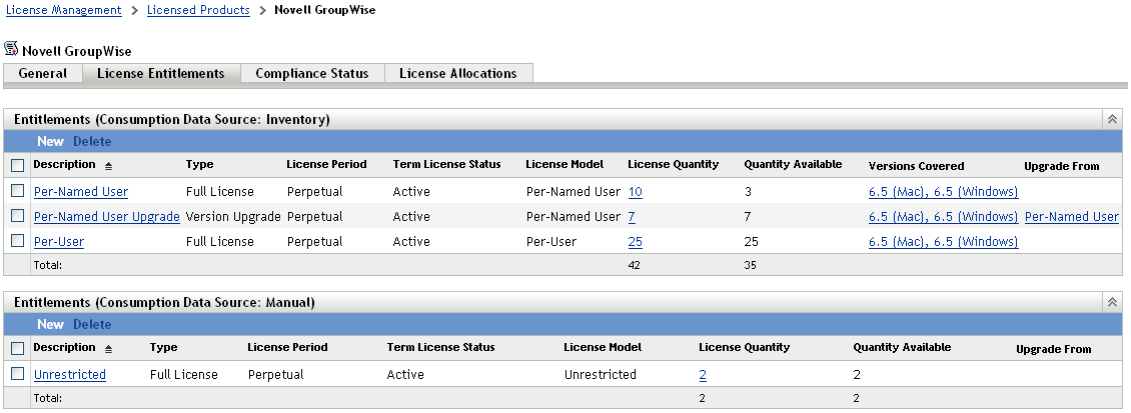
1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Licensed Products*.



3 Click the licensed product with the entitlement.

4 Click the *License Entitlements* tab.



5 In the Entitlements panel, click the entitlement to which you want to add contracts or documents.

6 Click the *Proof of Ownership* tab.

7 In the Contracts panel, click *Add*.

or

In the Documents panel, click *Add*.

8 Browse for and select the contracts or documents you want to add, then click *OK* to add them to the Contracts list or Documents list.

8 Working with Discovered Products

Discovered products are used to associate installations with licensed products. Each discovered product includes information about its total number of installations on devices in the Management Zone. When you associate a discovered product with a licensed products' entitlement, its installations become eligible to consume the entitlement's licenses.

The following sections explain the tasks associated with managing entitlements:

- Section 8.1, "How Installed Software Products Become Discovered Products," on page 67
- Section 8.2, "Viewing the Discovered Products List," on page 68
- Section 8.3, "Filtering the Discovered Products List," on page 69
- Section 8.4, "Excluding Discovered Products from Compliance Calculations," on page 70
- Section 8.5, "Adding Discovered Products to Licensed Products," on page 70
- Section 8.6, "Adding Discovered Products to Software Collections," on page 72
- Section 8.7, "Viewing a Discovered Product's Installations," on page 72
- Section 8.8, "Adjusting a Discovered Product's Installation Count," on page 73
- Section 8.9, "Assigning a Standards Category," on page 75
- Section 8.10, "Viewing the Inventory Products Included in a Discovered Product," on page 76
- Section 8.11, "Refreshing Compliance Status," on page 77

8.1 How Installed Software Products Become Discovered Products

Asset Management includes a product Knowledgebase that includes over 27,000 predefined discovered products. The following process is used to map installed software products to the Knowledgebase discovered products:

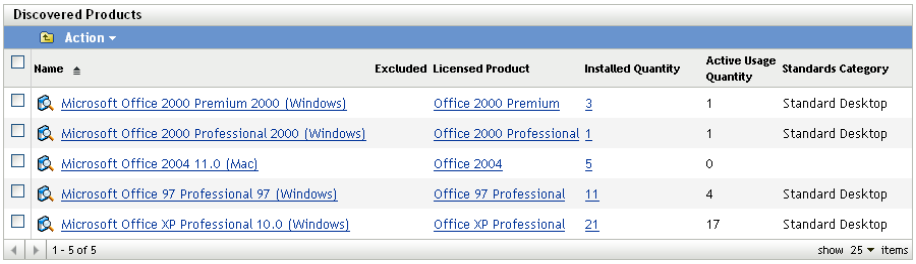
1. Asset Inventory scans devices to collect information about installed software products. These installed software products are referred to as Inventory products.
2. Asset Management filters the Inventory products through the Knowledgebase to map the Inventory products to discovered products. During this process, the following occurs:
   - All related versions, service releases, and language versions are mapped to the same minor-version discovered product. For example, Product A 5.5, Product A 5.5 (JP) and Product A 5.5.1 are consolidated under one Product A 5.5 discovered product.
   - Products that do not require licensing, such as browsers and viewers, are excluded.
   - Software suites and their member products are identified.
3. Asset Management sets the discovered products' installation quantity equal to the total installations for its mapped Inventory products.

As you work with discovered products, you'll see the term *installed discovered products*. Discovered products are all 27,000+ products included in the Knowledgebase. Installed discovered products are only those discovered products that are actually installed in your organization (as discovered through Inventory scans). By default, the Discovered Products list in the ZENworks Control Center is filtered to show installed discovered products.

8.2 Viewing the Discovered Products List

You can view a list of all of your discovered products. The list provides general information about each discovered product, such as its number of installations and the licensed product with which it is associated

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Discovered Products*.



The list provides the following information for each discovered product:

Name: The name of the discovered product. The name consists of four parts: *Manufacturer Product Version* (*Platform*). For example, with *Acme Product A 8.5 (Windows)*, *Acme* is the manufacturer, *Product A* is the product, *8.5* is the version, and *Windows* is the platform. Click the name to display the discovered product's details.

Excluded: Indicates if the discovered product is excluded from compliance calculations. Excluded products cannot be added to a licensed product.

Licensed Product: The licensed product with which the discovered product is associated. Click the licensed product to display its entitlements. The discovered product is included in one of the listed entitlements.

Installed Quantity: The number of installations of the product in the Management Zone. Click the quantity number to display the list of devices that have the product installed.

Active Usage Quantity: The number of installed products that are actively being used. Active Usage Quantity is not displayed when the *Do not show usage on License Management pages* option is selected (*Configuration* > *Management Zone Settings* > *Asset Management* > *Usage Display*).

Standards Category: The category for the product.

8.3 Filtering the Discovered Products List

By default, the Discovered Products list displays only the discovered products that are 1) installed on a device in your Management Zone and 2) are not excluded from compliance calculations. You can modify the Search criteria to change which discovered products are displayed.

For example, you can display only the discovered products from a specific manufacturer, or you can display only the discovered products that are associated with licensed products.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. In the Search panel (located next to the Discovered Products panel), specify the criteria to use for filtering the list. A product must match all defined criteria to be displayed.

   Name: Specify the text that the discovered product name (or folder name) must include. This is a partial match field that is case-insensitive. If the text you enter is included in any part of a discovered product name, the product matches the criteria.

   Manufacturer: Select a specific manufacturer, or select *Any* to match any manufacturers.

   Current Manufacturer: Select a specific manufacturer, or select *Any* to match any manufacturers.

   Platform: Select the platform (*Windows* or *Mac*) to match.

   Exclude Status: Select one of the following to match:

   - *Any*: Ignore the exclude status. Match all discovered products.
   - *Excluded*: Match only the discovered products that are excluded from compliance calculations. An excluded product cannot be associated with a licensed product.
   - *Not Excluded*: Match discovered products that are not excluded from compliance calculations.

   Install Status: Select one of the following to match:

   - *Any*: Ignore the install status. Match all discovered products.
   - *Installed*: Match only the discovered products that are installed in your Management Zone.
   - *Not Installed*: Match any discovered products that are included in the Knowledgebase but are not installed in your Management Zone.
   - *Reconciled*: Match only the reconciled discovered products.

   Usage Status: Select one of the following to match:

   - *Any*: Ignore the usage status. Match any discovered products.
   - *With Usage*: Match discovered products for which active usage is recorded.
   - *Without Usage*: Match discovered products for which no active usage is recorded.

   Reconciliation Status: Select one of the following to match:

   - *Any*: Ignore the reconciliation status. Match any discovered products.
   - *Reconciled*: Match discovered products that are associated with licensed products.
   - *Unreconciled*: Match discovered products that are not associated with licensed products.

   Standards Category: Select a standards category, or select *Any* to match any category.

   - *Any*: Ignore the source. Match all discovered products.
   - *Add Remove Programs*: Match discovered products collected from the Add Remove Program panel.

- *Fingerprinted Products*: Match discovered products collected from the fingerprinted products.
- *Local Software Products*: Match discovered products collected from the Local Software Products.

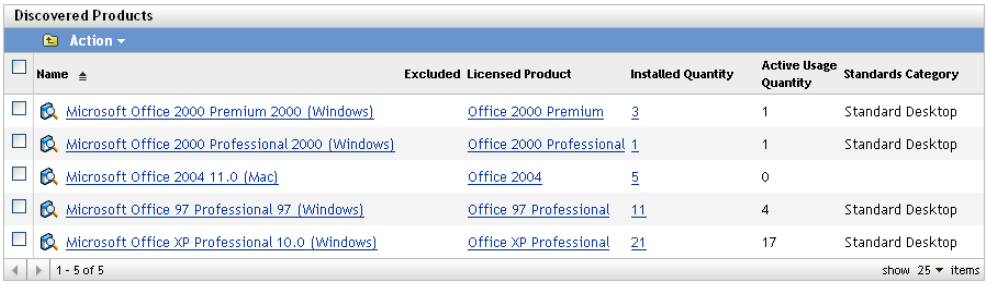
3 Click *Search* to apply the search criteria and filter the list.

8.4 Excluding Discovered Products from Compliance Calculations

If there are discovered products that you don't want associated with licensed products, you can exclude them. Excluded discovered products cannot be associated with licensed products and they do not appear in the Discovered Products list unless you change the default Search filter. Also, when you run the Auto-Reconcile Wizard to create licensed products from discovered products, excluded discovered products are not available.

1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Discovered Products*.



3 Select the product you want to exclude.

4 Click *Action* > *Exclude*.

8.5 Adding Discovered Products to Licensed Products

To associate product installations with a licensed product, you add discovered products to the licensed product's entitlements.

Discovered products can only be added to Inventory entitlements. Manual entitlements do not use discovered products.

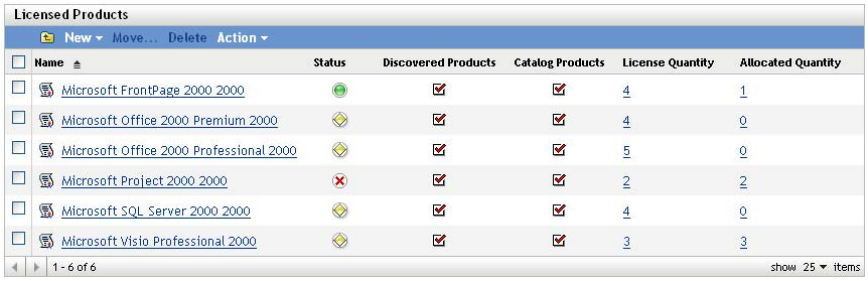
There are two ways to add a discovered product to an entitlement:

- Section 8.5.1, "Editing an Entitlement to Add Discovered Products," on page 70
- Section 8.5.2, "Using the Discovered Products List to Add Discovered Products," on page 71

8.5.1 Editing an Entitlement to Add Discovered Products

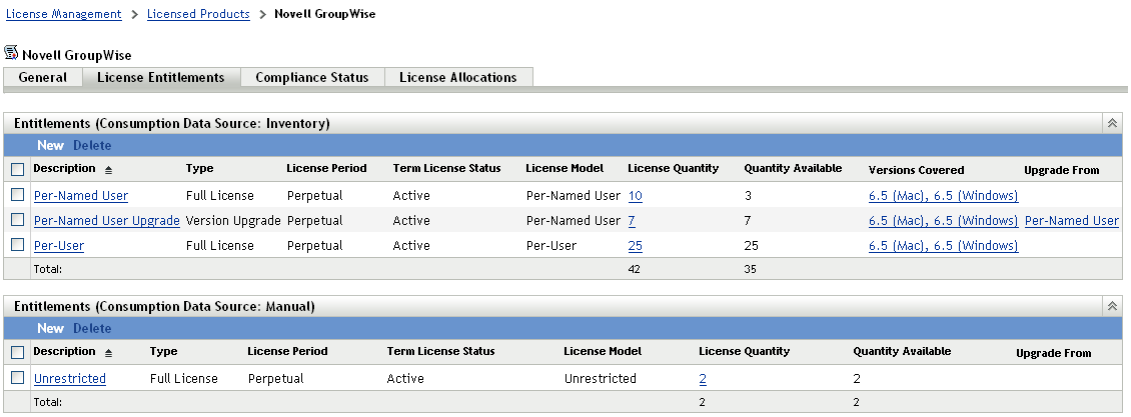
1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Licensed Products*.



3 Click the licensed product with the entitlement.

4 Click the *License Entitlements* tab.



5 In the Entitlements panel, click the entitlement to which you want to add discovered products.

6 Click the *Coverage* tab.

7 In the Discovered Product Versions Covered panel, click *Add* > *Installed Discovered Products* if you only want to choose from discover products that are installed in your Management Zone.

or

Click *Add '*> *Any Discovered Product* to see all discovered products contained in the ZENworks Knowledgebase.

8 Select the desired discovered products, then click *OK* to add them to the Discovered Product Versions Covered panel.

8.5.2 Using the Discovered Products List to Add Discovered Products

1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Discovered Products*.

3 Select the discovered products that you want to add to an entitlement.

4 Click *Action* > *Add to Licensed Product* to launch the Add Discovered Products to Licensed Product Wizard. Complete the wizard by using the information in the following table:

Wizard Page	Details
Licensed Product	Click to browse for and select the licensed product that contains the entitlement to which you want to add the discovered products.
License Entitlement	Select the entitlement to which you want to add the discovered products,
Summary	Review the data.

5 If you have not already done so, click *Finish* to add the discovered products to the entitlement.

In the Discovered Products list, the discovered product displays the licensed product with which it is now associated.

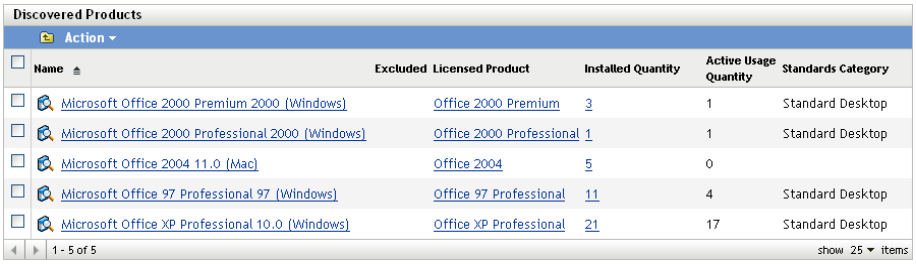
8.6 Adding Discovered Products to Software Collections

You can add discovered products to software collections. After the discovered products are added to the software collection, they no longer appear as separate products in the Discovered Products list. Instead, the software collection appears in the list.

The following steps assume that you are adding discovered products to an existing software collection. If you need to create a software collection, see Chapter 11, "Working with Software Collections," on page 103.

1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Discovered Products*.



3 Select the discovered products that you want to add to a software collection.

4 Click *Action* > *Add to Software Collection*.

8.7 Viewing a Discovered Product's Installations

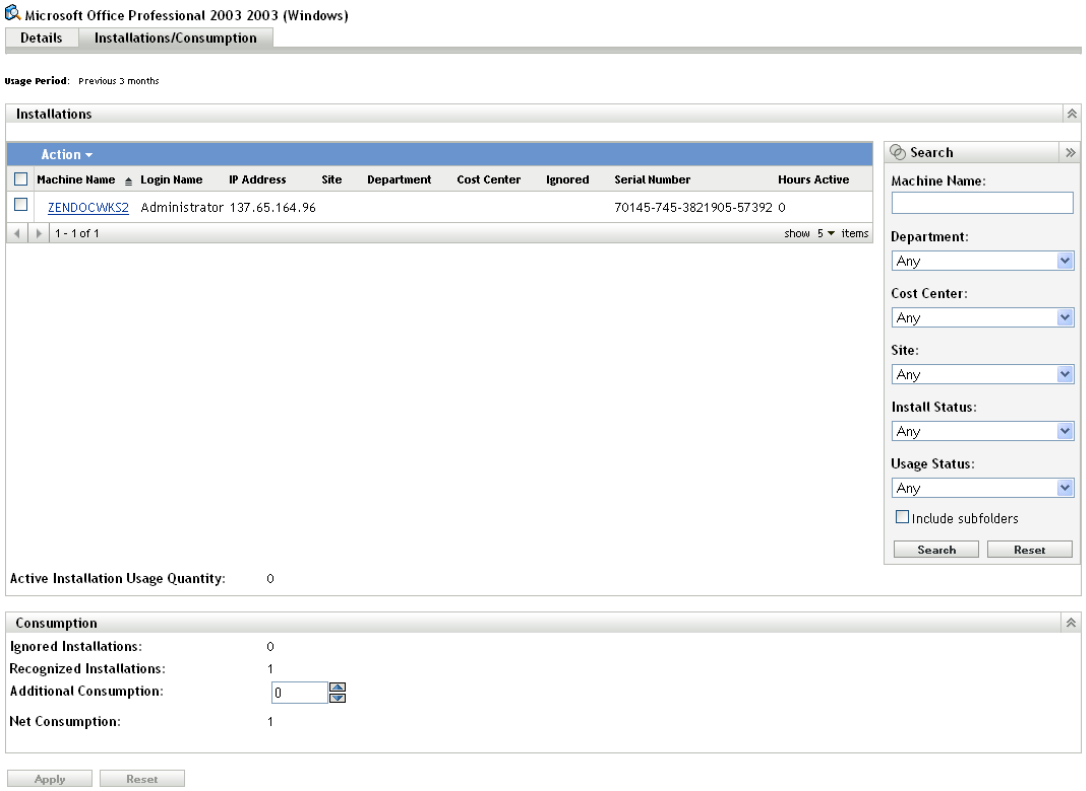
Each discovered product includes a list of the devices where it is installed. To view this list:

1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Discovered Products*.

3 Click the discovered product whose installations you want to view.

4 Click the *Installations/Consumption* tab to display the list of installations.

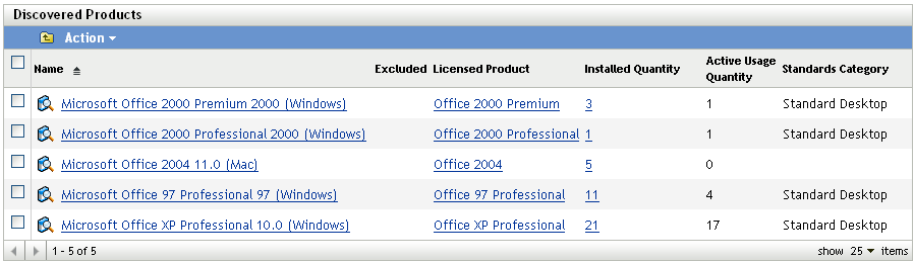


8.8 Adjusting a Discovered Product's Installation Count

A discovered product provides a count of the total number of installations for the product. If necessary, you can manually adjust this count by ignoring installations or adding to the installation count.

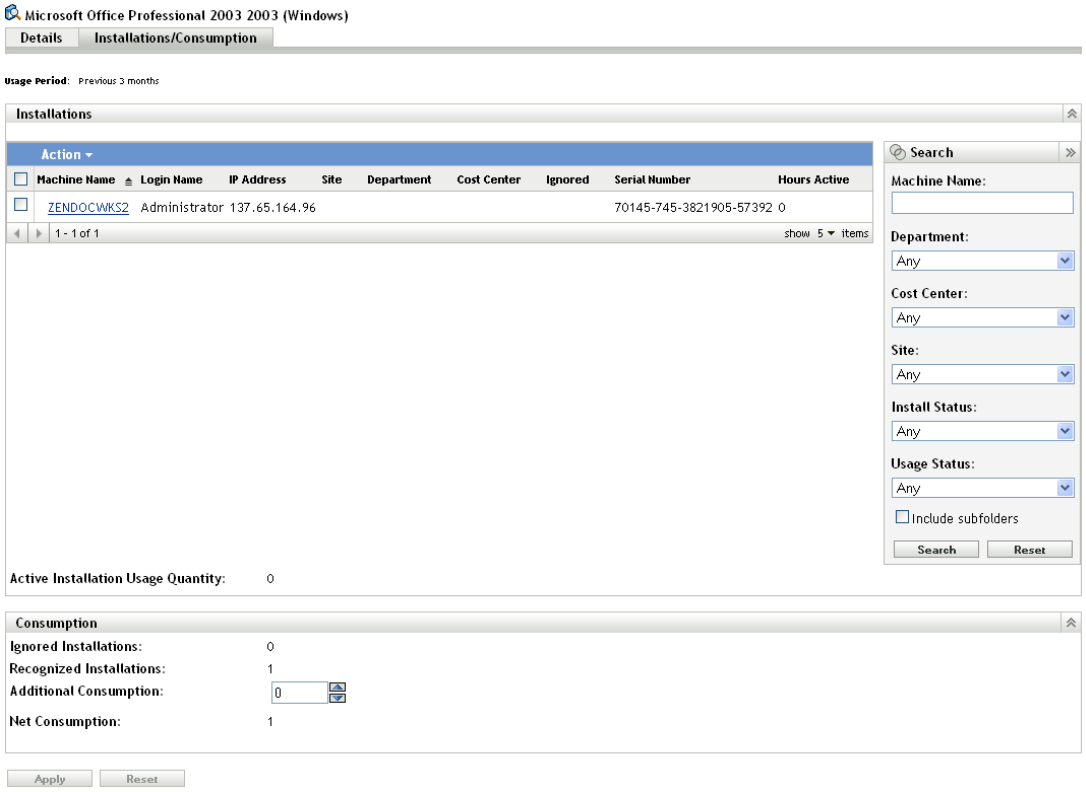
1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Discovered Products*.



3 Click the discovered product whose installations you want to adjust.

4 Click the *Installations/Consumption* tab.



The Consumption panel displays the following information:

Ignored Installations: The number of installations excluded from the total installation count (also referred to as the net consumption). You manually mark the installations you want ignored. See Step 5 for instructions.

Recognized Installations: The number of installations included in the total installation count.

Additional Consumption: The number of additional installations you want to add to the recognized installations. See Step 6 for instructions.

Net Consumption: The total number of installations included in the discovered product's installation count. This is equal to (*Recognized Installations* + *Additional Consumption*) - *Ignored Installations*.

5 To ignore an installation, select the installation in the Installations panel by clicking the check box next to the installation, then click *Action* > *Ignore Installation*.

6 To add installations to the count, use the *Additional Consumption* field in the Consumption panel to select the number of additional installations.

7 Click *Apply* to save your changes.

8.9 Assigning a Standards Category

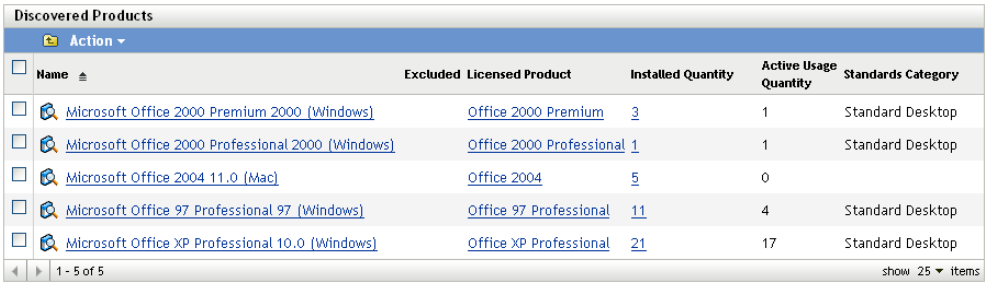
If your organization has policies and standards to which installed software products must conform, or if you simply want another categorization to help you organize your discovered products, you can assign standards categories to your discovered products.

For example, you might create Standard, Non-Standard, and Standard Violation categories to track standards compliance across all discovered products. Or, you might make the categories more specific, such as Standard Desktop, Non-Standard Desktop, Standard Desktop Violation, Standard Server, Non-Standard Server, and Standard Server Violation.

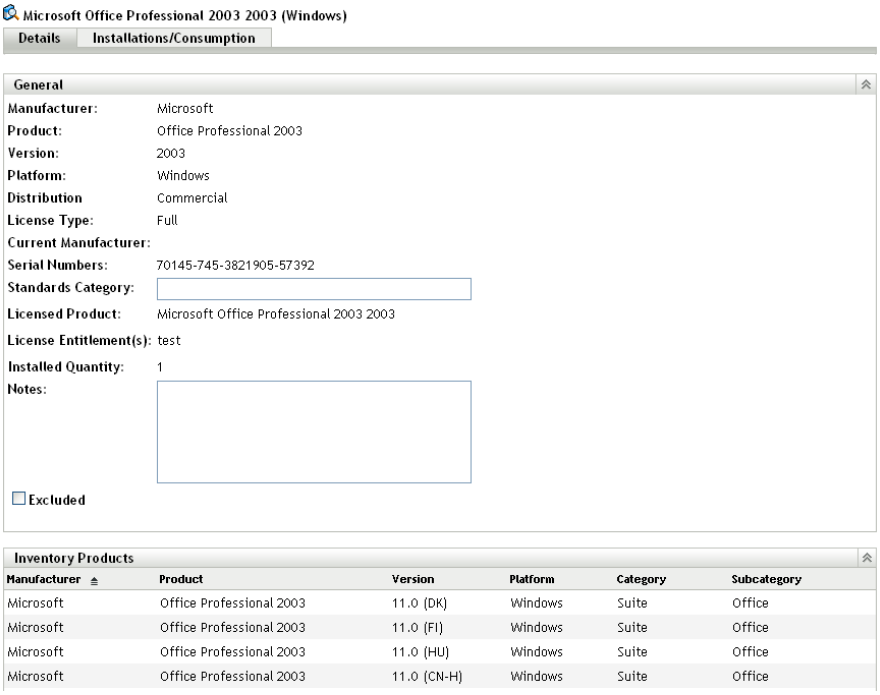
The Discovered Products list includes a column to show each discovered product's standards category. In addition, you can generate a Software Standards report that includes the standards category for every product (see Chapter 31, "Working with Standard Reports," on page 183).

1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Discovered Products*.



3 Click the discovered product to which you want to assign a standards category.



4 In the *Standards Category* field, select an existing category or type in a new one.

You can select an existing standards category only if you've already created one for another discovered product. Otherwise, no list is available and you must define the standards category by typing it in the field.

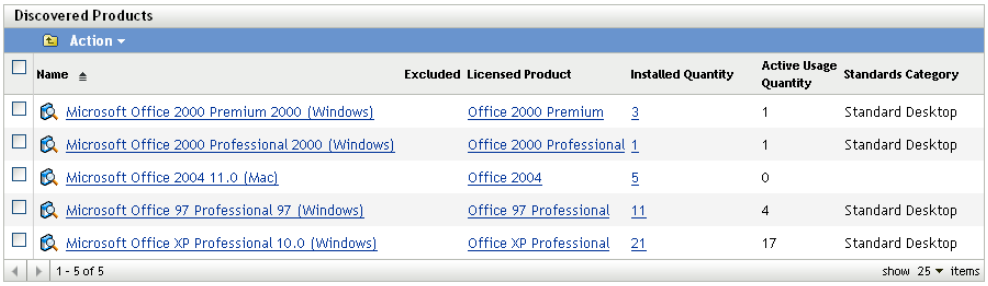
5 Click *Apply*.

8.10 Viewing the Inventory Products Included in a Discovered Product

Each discovered product provides a list of the Inventory products that have been consolidated into the discovered product (see Section 8.1, "How Installed Software Products Become Discovered Products," on page 67). To view this list:

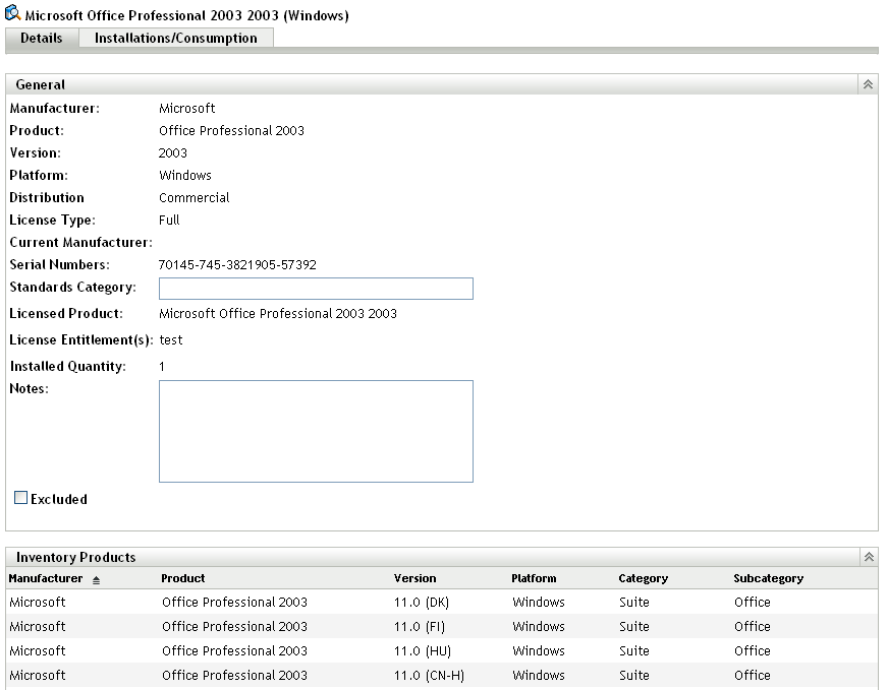
1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Discovered Products*.



3 Click the discovered product whose Inventory products you want to view.

The Inventory Products panel on the *Details* tab lists each of the Inventory products.



8.11 Refreshing Compliance Status

Refreshing compliance data recalculates all discovered product installation counts and recalculates compliance status for all licensed products. The following sections explain when automatic refreshes occur, how to manually trigger a refresh, and how to find out when the last scheduled refresh occurred.

- Section 8.11.1, “Automatically Refreshing Status,” on page 77
- Section 8.11.2, “Manually Triggering a Refresh,” on page 78
- Section 8.11.3, “Viewing Refresh Details,” on page 78

8.11.1 Automatically Refreshing Status

The compliance status for all licensed products is automatically refreshed at the following times:

- When you import purchase records. This ensures that a product’s compliance status immediately reflects any newly purchased licenses.
- Each day at the time specified for the compliance engine’s refresh schedule (see Chapter 3, “Configuring Compliance Settings,” on page 27). This ensures that a product’s compliance status reflects any changes to the installation count for its discovered products.

In addition, the compliance status for an individual product is automatically refreshed when the following actions occur:

- Creating or deleting an entitlement.

- Adding, modifying, or deleting any entitlement entry that affects license quantity or installation quantity. This includes purchase records, purchase record summaries, catalog products, discovered products, and software collections.
- Adjusting the installation count (net consumption) for a discovered product.

8.11.2 Manually Triggering a Refresh

You can manually trigger a refresh of the compliance status for all licensed products. You cannot manually trigger a refresh of an individual licensed product.

1. In ZENworks Control Center, click *Asset Management* > *License Management* to display the License Management page.
2. Click *Discovered Products* to display the Discovered Products page.

   A compliance refresh can also be triggered from the Licensed Products page.
3. In the Discovered Products panel, click *Actions* > *Refresh Compliance Status*.

8.11.3 Viewing Refresh Details

You can see information about the latest refresh above the menu bar of both the Discovered Products page and Licensed Products page. This information includes the following:

- The last time a compliance refresh was started and ended
- What initiated the refresh
- Whether it was a refresh of all products or a single product

The *Compliance Status* tab of the Licensed Product page also shows the time the license was last refreshed. In addition, clicking *License Management Reports* > *Software Compliance* > *Compliance Report* displays a column called *More Recent Recalc* that indicates if a license has been refreshed more recently than the last full refresh of all licenses.

9 Working with Purchase Records

Purchase records provide details about the number of licensed purchased for your software products.

For example, Purchase Record 1 includes two purchase details: 10 units of *Product A (Single License Pack)* and 3 units of *Product B (10-License Pack)*. Purchase Record 2 includes a purchase detail for 4 additional units of *Product B (10-License Pack)*.

Catalog products consume the purchased license quantities from their associated purchase details. For example, the *Product B (10-License Pack)* catalog product consumes a total of 70 licenses. Purchase Record 1 provides 30 licenses from 3 units of *Product B (10-License Pack*). Purchase Record 2 provides 40 licenses from 4 units of *Product B (10-License Pack)*.

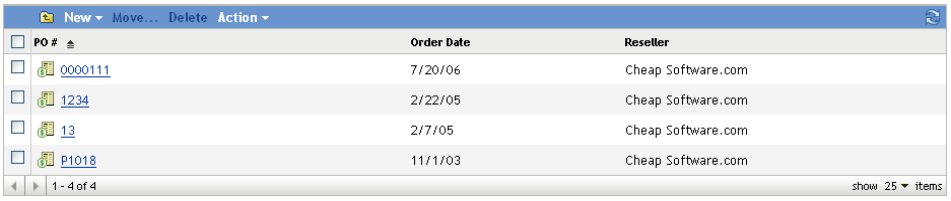
The following sections explain the tasks associated with managing purchase records:

- Section 9.1, “Viewing the Purchase Records List,” on page 79
- Section 9.2, “Filtering the Purchase Records List,” on page 80
- Section 9.3, “Creating a Purchase Record Folder,” on page 80
- Section 9.4, “Creating Purchase Records,” on page 81
- Section 9.5, “Viewing a Purchase Record’s Details,” on page 84
- Section 9.6, “Changing a Purchase Record’s General Information,” on page 86
- Section 9.7, “Deleting a Purchase Record,” on page 86
- Section 9.8, “Moving a Purchase Record,” on page 87
- Section 9.9, “Working with Import Files,” on page 87

9.1 Viewing the Purchase Records List

You can view a list of all of your purchase records. The list provides general information about each purchase record, such as its purchase order number and date.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Purchase Records*.



The list provides the following information for each purchase record:

PO#: The purchase order number associated with the record.

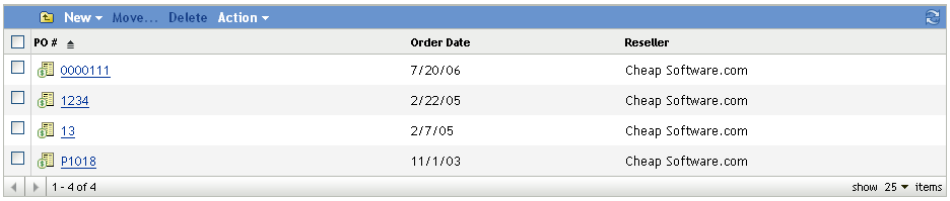
Order Date: The date of the purchase order.

Reseller: The reseller from which the purchase was made.

9.2 Filtering the Purchase Records List

You can filter the Purchase Records list to display only the purchase records that meet certain criteria.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Purchase Records*.



3. In the Search panel (located next to the Purchase Records list), enter the criteria to use for the filter. A product must match all criteria to be displayed.

   PO Number: Specify the text that the purchase order number (or folder name) must include. This is a partial match field that is case-insensitive. If the text you enter is included in any part of a purchase order number, the record matches the criteria.

   Type: Select whether you want to match folders, purchase records, or both.

   Reseller: Select a specific reseller, or select *Any* to match any reseller.

   Order Date: Select one of the following to match:

   - *Any*: Ignore the order date. Match any purchase record.
   - *On*: Match purchase records whose order date is on the specified date. Click to specify the date.
   - *Before*: Match purchase records whose order date is before the specified date. Click to specify the date.
   - *After*: Match purchase records whose order date is after the specified date. Click to specify the date.

   Include Subfolders: Select this option to search the current folder and its subfolders.
4. Click *Search* to apply the search criteria and filter the list.

9.3 Creating a Purchase Record Folder

You can create folders in the Purchase Records list to better organize your purchase records. All folders are displayed at the top of the list.

1. In ZENworks Control Center, click *Asset Management* > *License Management* > *Purchase Records* to display the *Purchase Records* page.

2 Click *New* > *Folder* to display the New Folder dialog box.

3 Fill in the following fields:

Name: Specify a name for the folder. The name must be unique among all other folders and purchase records at the same level.

Folder: Browse for and select the folder in which to place the new folder.

Description: Specify any optional information to identify the folder.

4 Click *OK* to create the folder.

9.4 Creating Purchase Records

The easiest way to create purchase records is to import them from files supplied by resellers. Asset Management can import purchase records from CompuCom, Insight, KMD/SAP, SHI, and Softchoice. In addition, there is generic import format that you can use (see "Working with Import Files" on page 87).

If you are unable to import data from a supported import file, you must manually create purchase records.

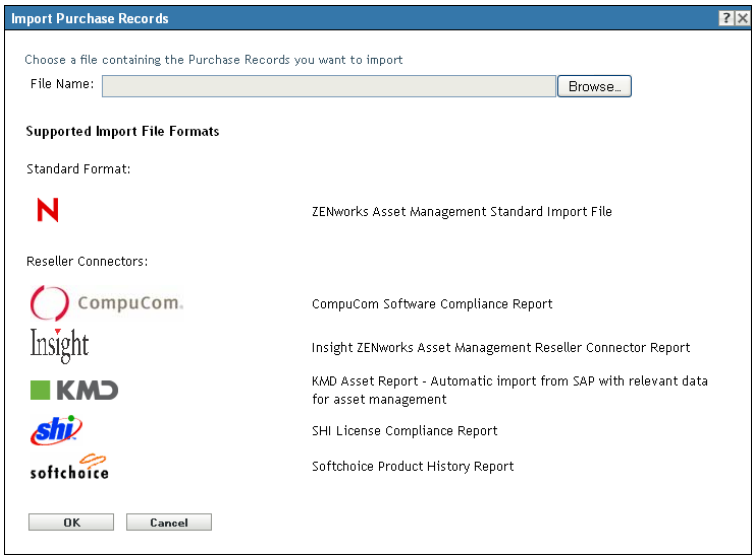
- Section 9.4.1, "Importing Purchase Records," on page 81
- Section 9.4.2, "Manually Creating Purchase Records," on page 83

9.4.1 Importing Purchase Records

1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Purchase Records*.

3 Click *Action* > *Start Import* to display the Import Purchase Records dialog box.



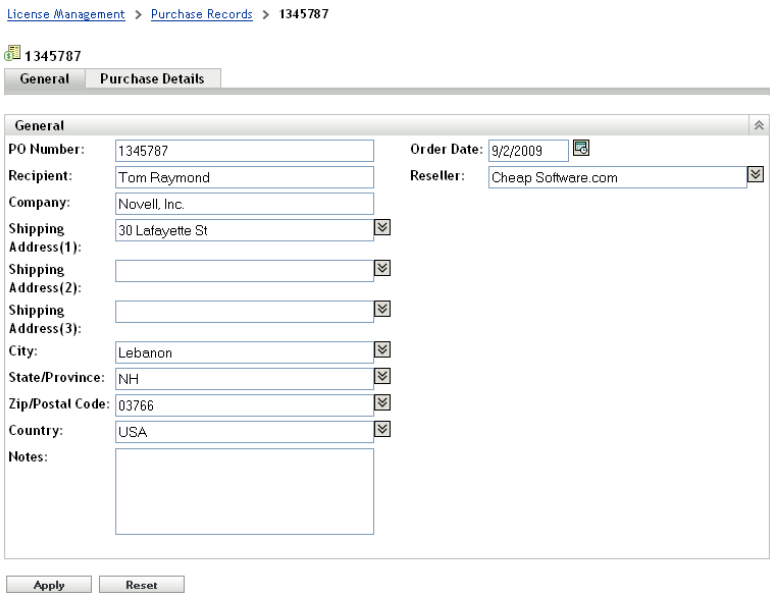
4 In the *File Name* field, click *Browse* to locate and select the import file.

5 Click *OK* to start the import.

During the import, the progress is displayed above the *Purchase Records* list. You can also click the *Import Status* tab to see the progress of the import and a record of previous imports.

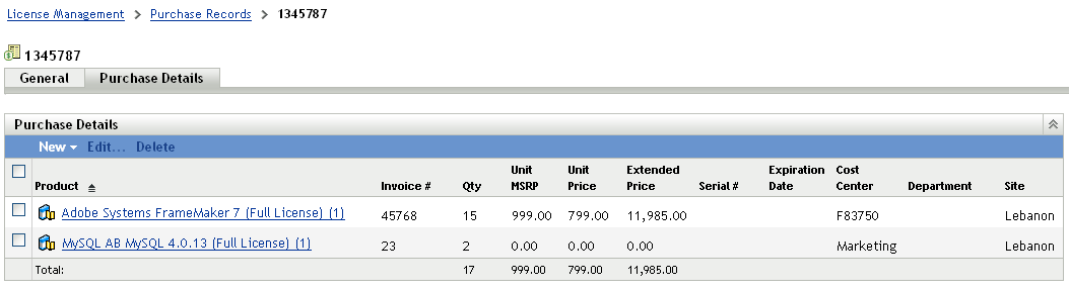
When the import is complete, the new purchase records are added to the list.

6 Click a purchase record to display its information.



The General page displays information about the reseller, purchaser, and purchase date.

7 Click the *Purchase Details* tab.

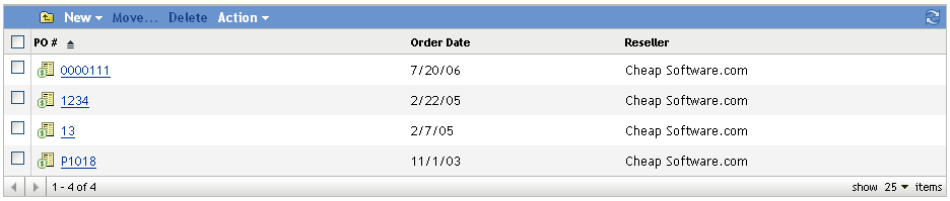


On the Purchase Details page, each software product purchase (included in the purchase record) is associated with a catalog product. If necessary, Asset Management creates a catalog product for any new software products included in the purchase record.

You can view all catalog products by clicking the *License Management* tab > *Catalog Products*.

9.4.2 Manually Creating Purchase Records

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Purchase Records*.



3. In the Purchase Records panel, click *New* > *Purchase Record* to launch the Create New Purchase Record Wizard.
4. On the General Information page, fill in at least one of the following fields. The other fields are optional.

   PO Number: The purchase order number. The purchase record object uses the PO number for its name. If you don't supply a PO number, the name of the purchase record object defaults to `Unknown (MM_DD_YY)`, where `MM_DD_YY` is the current date in the appropriate locale format.

   Order Date: The date the product was ordered. To select a date, click , select a date, then click *OK*. If you provide a PO number but not a date, this field defaults to the current date.
5. Click *Next* to display the New Purchase Record Summary page.
6. Select *Define Additional Properties*, then click Finish to create the purchase record and display the Purchase Details page.

   You use the Purchase Details page to enter the details for each software product purchase included in the purchase record.

   Each purchase detail must be associated with a catalog product. For example, if your purchase record includes a purchase of *Product B (10-License Pack)*, a *Product B (10-License Pack)* catalog product must exist before you create the purchase detail. The Purchase Details page lets you create catalog products if necessary.
7. If the catalog product already exists, click *New* > *Purchase Detail* to display the Add Purchase Detail dialog box. Otherwise, skip to Step 8.

   7a Fill in the following fields (the other fields are optional):

Product: Click to browse for and select the catalog product to associate with the purchase detail. The catalog product inherits the purchases licenses.

Purchase Quantity: Specify the number of units of the product that were purchased. This number does not always correspond to the number of licenses for the product. For example, you might purchase 5 units of *Product A (Single License Pack)* or 10 units of *Product B (10-License Pack)*.

Unit MSRP: The Manufacturer's suggested retail price (MSRP) for a single unit.

Unit Price: The price you paid for a single unit.

Extended Price: The standard calculation for this field is the Unit Price multiplied by the Purchase Quantity (for example, $200.00 x 5). If you leave the field empty, the calculation is performed automatically when the purchase detail is created. If the standard calculation is not correct, specify the correct extended price.

7b Click *OK* to add the purchase detail to the list.

7c Repeat the steps to create additional purchase details.

8 If the catalog product does not exist, click *New* > *Catalog Product* to launch the Create New Catalog Product Wizard.

8a On the General Information page, fill in the following fields. The other fields are optional, but you should enter as much information as possible to identify the catalog product.

Product: Specify the name of the product as indicated in your purchase record. This should be as specific as possible. For example, if the product is *Product B (10-License Pack)*, enter that name rather than *Product B*.

Licenses Per Package: Specify the number of licenses that come in the package.

8b Click *Next* to display the New Purchase Detail page, then fill in the following fields to create the purchase detail (the other fields are optional):

Purchase Quantity: Specify the number of units of the product that were purchased. This number does not necessarily correspond to the number of licenses for the product. For example, you might purchase 5 units of *Product A (Single License Pack)* or 10 units of *Product B (10-License Pack)*.

Unit MSRP: The Manufacturer's suggested retail price (MSRP) for a single unit.

Unit Price: The price you paid for a single unit.

Extended Price: The standard calculation for this field is the Unit Price multiplied by the Purchase Quantity (for example, $200.00 x 5). If you leave the field empty, the calculation is performed automatically when the purchase detail is created. If the standard calculation is not correct, enter the correct extended price.

8c Click *Next*, review the information, then click *Finish* to create the purchase detail and catalog product.

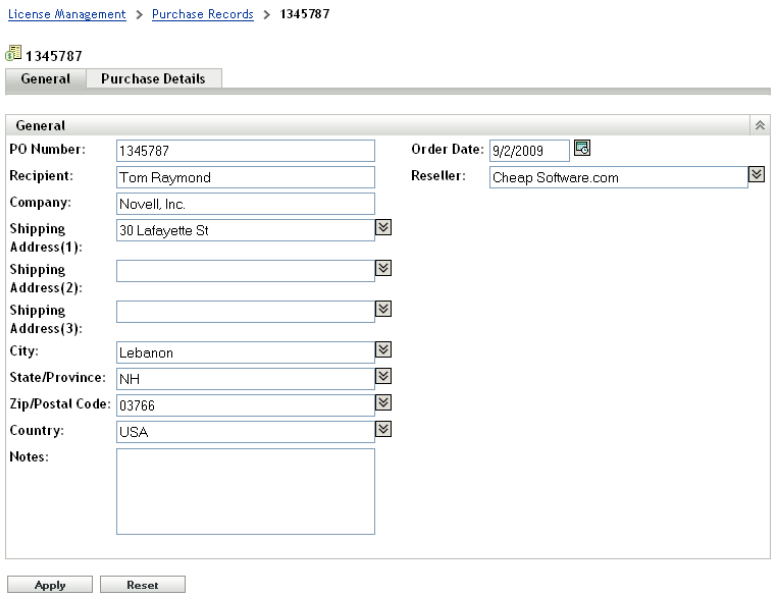
8d Repeat the steps to create additional catalog products and purchase details.

9.5 Viewing a Purchase Record's Details

1 In ZENworks Control Center, click the *Asset Management* tab.

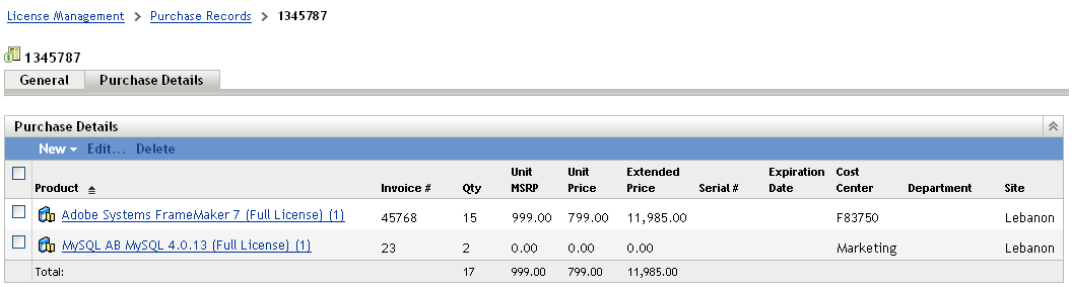
2 On the License Management page, click *Purchase Records*.

3 Click a purchase record to display its information.



The General page displays information about the reseller, purchaser, and purchase date.

4 Click the *Purchase Details* tab.



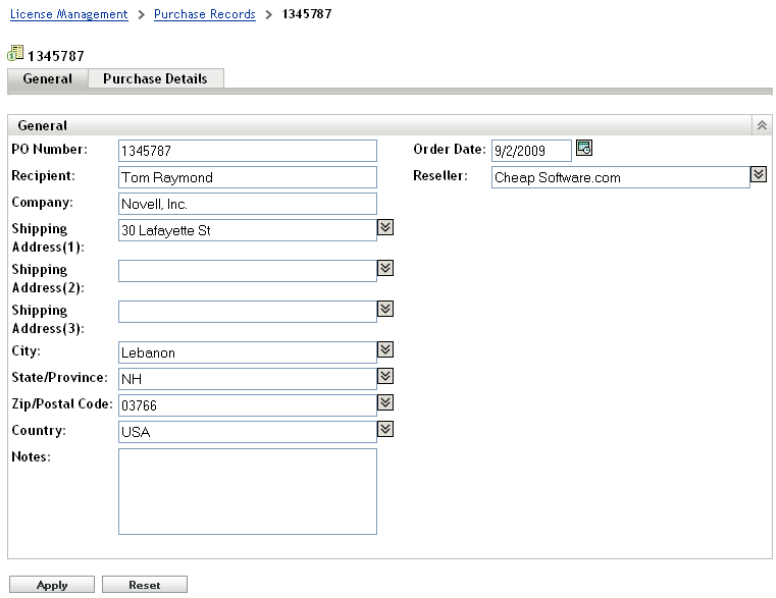
On the Purchase Details page, each software product purchase (included in the purchase record) is associated with a catalog product. That catalog product consumes the licenses included in the purchase.

You can view all catalog products by clicking the *License Management* tab > *Catalog Products*.

9.6 Changing a Purchase Record's General Information

A purchase record includes general information such as its purchase order number, recipient name and address, order date, and reseller. You can modify this information as necessary.

1. In ZENworks Control Center, click *Asset Management* > *License Management* > *Purchase Records* to display the Purchase Records page.
2. In the Purchase Records panel, click the purchase record whose general information you want to edit.



3. Modify the fields as needed:

   PO Number: Specify the number assigned to the purchase order.

   Recipient - Country: Use these fields to provide information about the order recipient. For each field, select a value from the list or enter a new value.

   Notes: Add any information you want to retain with the purchase order.

   Order Date: Click to select the purchase date.

   Reseller: Select the reseller from the list or enter a new reseller.
4. Click *Apply* to save the changes.

9.7 Deleting a Purchase Record

You can remove a purchase record from the Purchase Records list by deleting it. Both the purchase record and its details are deleted.

Deleting a purchase record reduces the license quantity of any catalog products that consume purchased licenses from the purchase record's details.

1. In ZENworks Control Center, click *Asset Management* > *License Management* > *Purchased Records* to display the *Purchased Records* page.
2. In the Purchased Records panel, select the purchase record you want to delete.
3. Click *Delete*, then click *OK* to confirm the deletion.

9.8 Moving a Purchase Record

You can move a purchase record from one folder to another in the Purchase Records list.

1. In ZENworks Control Center, click *Asset Management* > *License Management* > Purchase Records to display the Purchase Records page.
2. In the Purchase Records panel, select the purchase record you want to move.
3. Click *Move* to display the Move Purchase Record(s) dialog box.
4. Browse for and select the target folder, then click *OK*.

9.9 Working with Import Files

ZENworks Asset Management can import purchase records from a standard Asset Management import file of from any of the following reseller import files:

- CompuCom Software Compliance Report
- Softchoice Product History Report
- ZENworks Asset Management Reseller Connector Report
- SHI License Compliance Report
- KMD Asset Report: Automatic import from SAP with relevant data for asset management

The following information is provided if you need to modify a reseller import file or if you want to create a standard Asset Management import file:

- Section 9.9.1, “Format,” on page 87
- Section 9.9.2, “Fields,” on page 87

9.9.1 Format

Import files are tab-delimited ASCII text files. The first row contains the column headers. Each additional row is a data row that identifies a specific product’s line item (or detail) in a purchase record. The following example includes the first few rows of a file; only the first six column headers are displayed.

```
PO#     OrderDate     Reseller     Recipient     CompanyName     ShippingAddress1
1234    12/16/2009    CheapSoft    Jen Adams     Novell          1800 S. Novell Pl.
87654   12/18/2009    Soft-R-Us    Nigel Ray     Novell          404 Wyman Street
```

The order of the columns is not important. For example, you can reverse the PO# and OrderDate columns or remove any columns that contain unwanted information.

9.9.2 Fields

The table shown below lists the fields used in each reseller import file.

The table’s first column covers standard, Insight, CompuCom, SHI, and KMD import files because they use the same field names. The one exception is that KMD uses PO_NUMBER rather than PO#. The table’s second column covers the Softchoice import file.

Fields 1–13 identify the purchase record. Fields 14–30 identify a product's line item (or detail) included in the purchase record. For two products to be included in the same purchase record, the information in fields 1–13 must match.

When working with an import file, the following rules apply:

- Use only the fields intended for that import file. For example, when editing a Softchoice import file, include only the fields listed in the Softchoice Fields column. Any invalid fields cause the import to fail.
- The following fields are required: (PO# | PO_NUMBER | PURCHASEORDER), (OrderDate | ORDERDATE), (ProductName | ITEMDESC), and (PurchaseQty | QTYORD). Removing these fields causes the import to fail.
- The LicensesPerPackage field is also required; however, if it is missing the importer assigns a default value of 1.
- All non-required fields can be removed if desired. When doing so, remove both the field column header and the field text in each subsequent row.

Table 9-1 *Import File Fields*

	Standard, KMD, Insight, CompuCom, and SHI Fields	Softchoice Fields	Description
1	PO# (standard, Insight, CompuCom, SHI) PO_NUMBER (KMD)	PURCHASEORDER	The purchase order number. Either this field or the OrderDate field must be included in the record. If neither field contains data, the record is not imported. The ZENworks purchase record object (created during import) uses the PO number for its name. If you don't supply a PO number, the name of the purchase record object defaults to `Unknown (MM_DD_YY)`, where *MM_DD_YY* is the current date in the appropriate locale format. The maximum field length is 32 characters.

Standard, KMD, Insight, CompuCom, and SHI Fields		Softchoice Fields	Description
2	OrderDate	ORDERDATE	The date the product was ordered. Either this field or the PO# field must be included in the record. If neither field contains data, the record is not imported. If you provide a PO number but not a date, the OrderDate field defaults to the import date. For a standard, Insight, CompuCom, or SHI import file, the OrderDate field requires the short date format determined by the ZENworks Control Center's server locale. For example, if the server locale is US-English, the correct date format is m/d/yyyy (12/16/2009 or 5/3/2010). For a KMD import file, the OrderDate field requires the d/M/yy format (for example, 28/1/09). For a Softchoice import file, the ORDERDATE field requires the dd-MMM-yyyy format (for example, 18-JUL-2010).
3	Reseller		The reseller from whom the products in this order were purchased. The maximum field length is 64 characters.
4	Recipient	SHIPCONTACTNAME	The individual to whom the products in this order were shipped. The maximum field length is 32 characters.
5	CompanyName	COMPANYNAME	The name of the company or entity that executed the order. The maximum field length is 32 characters.
6	ShippingAddress1	SHIPADDR	The first line of the shipping address. The maximum field length is 64 characters.
7	ShippingAddress2	SHIPCITYSTZIP	The second line of the shipping address. The maximum field length is 64 characters.
8	ShippingAddress3		The third line of the shipping address. The maximum field length is 64 characters.
9	City		The city where the order was shipped. The maximum field length is 32 characters.
10	State		The state where the order was shipped. The maximum field length is 32 characters.
11	Zip		The ZIP code or mail code of the shipping destination. The maximum field length is 16 characters.

	Standard, KMD, Insight, CompuCom, and SHI Fields	Softchoice Fields	Description
12	Country		The country where the order was shipped. The maximum field length is 32 characters.
13	Notes		A text field for general notes about the purchase record. The maximum field length is 255 characters.
14	Manufacturer	PUBLISHER	The manufacturer of the purchased product. The Manufacturer, ProductName, Version, ProductType, and LicensesPerPackage fields are used to determine the existence of a unique product. The maximum field length is 64 characters.
15	ProductName	ITEMDESC	The name or description of the purchased product. This field is required. The Manufacturer, ProductName, Version, ProductType, and LicensesPerPackage fields are used to determine the existence of a unique product. The maximum field length is 255 characters.
16	Version		The version of the purchased product. The Manufacturer, ProductName, Version, ProductType, and LicensesPerPackage fields are used to determine the existence of a unique product. The maximum field length is 32 characters.
17	ProductType		The type of purchased product. This field helps establish what the product represents, such as full license, upgrade, or media. The Manufacturer, ProductName, Version, ProductType, and LicensesPerPackage fields are used to determine the existence of a unique product. The maximum field length is 32 characters.
18	LicensesPerPackage		The number of licenses included in each purchased product unit. For example, if the product is a 5-pack, this value is 5. The default is 1. Range values (for example, 1-25) are not supported and cause the line item to be skipped during import. The Manufacturer, ProductName, Version, ProductType, and LicensesPerPackage fields are used to determine the existence of a unique product.

Standard, KMD, Insight, CompuCom, and SHI Fields		Softchoice Fields	Description
19	ResellerSKU	SKU	The SKU number assigned by the reseller. This value might be important when communicating with a particular reseller. The maximum field length is 32 characters.
20	MfrPart#	MFGSKU	The part number assigned by the manufacturer. If available, this value can often be used to distinguish one product from another. The maximum field length is 32 characters.
21	PurchaseQty	QTYORD	The number of product units purchased in the order. This must be a single value. Range values (for example, 1-25) are not supported and cause the record to be skipped during import. The value must be between -1000000 and 1000000.
22	Serial#		The software serial number associated with the ordered product The maximum field length is 40 characters.
23	Site[1]		The Site, Department, and CostCenter fields are used for tracking demographics. You can associate a line item with a value in any or all of these columns so that license quantities can be summarized within a particular demographic. For these values to be meaningful, corresponding demographics must be associated with devices in the ZENworks Asset Management inventory. The maximum field length is 32 characters.
24	Department[1]		
25	CostCenter[1]		
26	Comment	COMMENTS	A text field for general comments about the purchased product. The maximum field length is 128 characters.
27	Invoice#	INVOICE	The invoice number of the purchased product. Multiple invoices can be associated with the same purchase order number.

Standard, KMD, Insight, CompuCom, and SHI Fields	Softchoice Fields	Description
28 UnitMSRP		The UnitMSRP is the manufacturer's suggested price for one product unit.
29 UnitPrice		The UnitPrice is the actual price paid for one product unit.
30 ExtendedPrice		The Extended Price is the cost for all the purchased product units. If no value exists in the ExtendedPrice field, a value is calculated based on the values of the PurchaseQty and UnitPrice fields. If a value exists, it is imported and is not checked to see if it matches a calculated value. If currency symbols and thousands separators appear in the fields, they are stripped out when the data is imported. The importer uses the locale of the server to determine what characters are used for thousands and monetary decimal separators. If your values contain a mixture of currencies, the imported cost values might be incorrect. Range values (for example, 25.00-39.99) are not supported and cause the record to be skipped during import.

[1]*Cost Center, Department,* and *Site* values are meaningful for licensed products with demographic allocations enabled. The allocated quantity is updated (along with the license quantity) for licensed products that have the corresponding demographic allocation type (site, department, or cost center) and have enabled *Update license allocations with demographic data from future purchase record imports*.

10 Working with Catalog Products

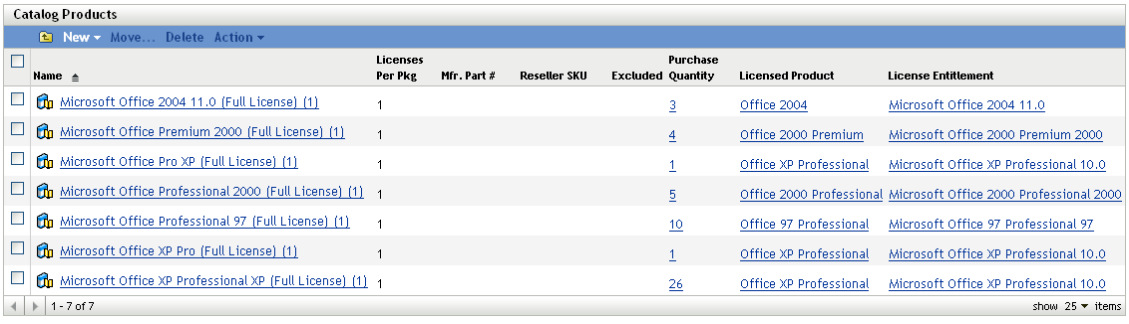
Catalog products are used to associate purchased licenses with licensed products. The following sections explain the tasks associated with managing catalog products:

- Section 10.1, “Viewing the Catalog Products List,” on page 93
- Section 10.2, “Filtering the Catalog Products List,” on page 94
- Section 10.3, “Excluding Catalog Products from Compliance Calculations,” on page 95
- Section 10.4, “Creating Catalog Products by Importing Purchase Records,” on page 96
- Section 10.5, “Creating Catalog Products Manually,” on page 96
- Section 10.6, “Adding Purchased Licenses to a Catalog Product,” on page 97
- Section 10.7, “Adding Catalog Products to a Licensed Product,” on page 98
- Section 10.8, “Creating a Catalog Product Folder,” on page 99
- Section 10.9, “Viewing a Catalog Product’s Purchases,” on page 100
- Section 10.10, “Changing a Catalog Product’s General Information,” on page 100
- Section 10.11, “Deleting a Catalog Product,” on page 101
- Section 10.12, “Moving a Catalog Product,” on page 102

10.1 Viewing the Catalog Products List

You can view a list of all of your catalog products. The list provides general information about each catalog product, such as the number of licenses included in one unit of the product catalog, the manufacture part number, and the licensed product with which it is associated.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Catalog Products*.



The list provides the following information for each catalog product:

Name: The name of the catalog product. The name consists of five parts: *Manufacturer Product Version* (*Product Type*) (*Licenses Per Package*). For example, with *Acme Product A 8.5 (Full License) (10)*, *Acme* is the manufacturer, *Product A* is the product, *8.5* is the version, *Full License* is the product type, and *10* is the number of licenses per product unit. Click the name to display the catalog product's details.

Licenses Per Pkg: The number of licenses included in one unit of the catalog product. For example, if the catalog product is *Product B (10-License Pack)*, the number of licenses is 10.

Mfr. Part. #: The part number that the manufacturer assigned to the software product package represented by the catalog product.

Reseller SKU: The SKU (stock-keeping unit) that the reseller assigned to the software product package represented by the catalog product.

Excluded: Indicates whether or not the catalog product is excluded from compliance calculations. Excluded products cannot be added to a licensed product.

Purchase Quantity: The number of packages of the software product you have purchased. This number, multiplied by the Licenses Per Pkg number, provides the total licenses associated with the catalog product. Click the quantity number to display the list of purchases for the catalog product.

Licensed Product: The licensed product to which the catalog product is assigned. Click the licensed product to display its License Entitlements page.

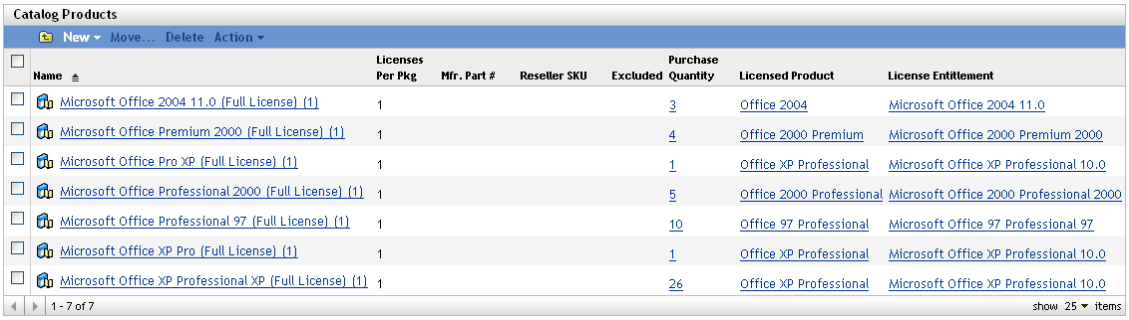
License Entitlement: The specific license entitlement to which the catalog product is assigned. Click the entitlement to display the entitlement's Proof of Ownership page. You can use this page to manage (view, add, or remove) the catalog product's association with the entitlement.

10.2 Filtering the Catalog Products List

By default, the Catalog Products list displays all catalog products that are not excluded from compliance calculations. You can modify the Search criteria to change which catalog products are displayed.

For example, you can display only the catalog products from a specific manufacturer, or you can display only the catalog products that are assigned to licensed products.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Catalog Products*.



3. In the Search panel (located next to the Catalog Products panel), specify the criteria to use for filtering the list. A product must match all defined criteria to be displayed.

   Name: Specify the text that the catalog product name (or folder name) must include. This is a partial match field that is case-insensitive. If the text you enter is included in any part of the name, the product matches the criteria.

Manufacturer: Select a specific manufacturer, or select *Any* to match any manufacturers.

Product Type: Select a specific product type, or select *Any* to match any product type.

Platform: Select the platform (*Windows* or *Mac*) to match.

Mfr. Part Number: Specify the text that the part number must include. This is a partial match field that is case-insensitive. If the text you enter is included in any part of the part number, the product matches the criteria.

Exclude Status: Select one of the following to match:

- *Any*: Ignore the exclude status. Match all catalog products.
- *Excluded*: Match only the catalog products that are excluded from compliance calculations. An excluded product cannot be associated with a licensed product.
- *Not Excluded*: Match catalog products that are not excluded from compliance calculations.

Reconciliation Status: Select one of the following to match:

- *Any*: Ignore the reconciliation status. Match all catalog products.
- *Reconciled*: Match catalog products that are assigned to licensed products.
- *Unreconciled*: Match catalog products that are not assigned to licensed products.

Include Subfolders: Select this option to search the current folder and its subfolders.

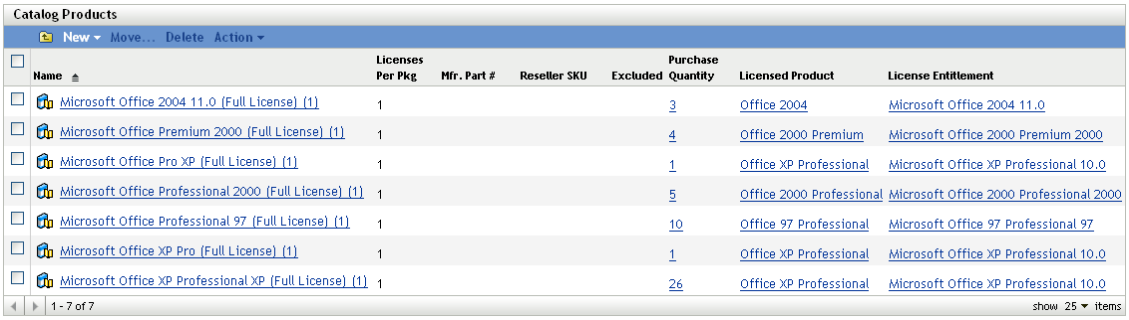
4 Click *Search* to apply the search criteria and filter the list.

10.3 Excluding Catalog Products from Compliance Calculations

If you have catalog products that you don't want associated with licensed products, you can exclude them. Excluded catalog products cannot be assigned to licensed products and they do not appear in the Catalog Products list unless you change the default Search filter. Also, when you run the Auto-Reconcile Wizard to create licensed products from discovered products, excluded catalog products are not available.

1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Catalog Products*.



3 Select the product you want to exclude.

4 Click *Action* > *Exclude*.

10.4 Creating Catalog Products by Importing Purchase Records

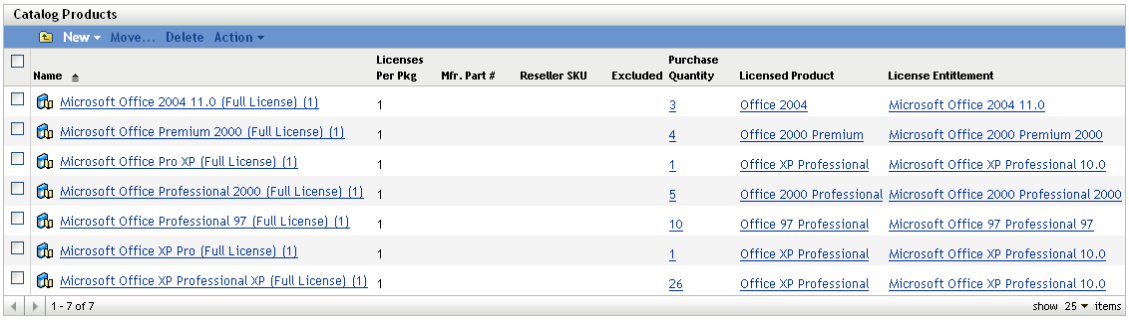
Asset Management allows you to import purchase records. When a purchase record contains a software product that is not already identified as an Asset Management catalog product, the import process creates the catalog product. When a purchase record contains a software product that is already identified as a catalog product, the import process adds the product's purchased licenses to the catalog product.

For instructions about how to import purchase records, see Section 9.4.1, "Importing Purchase Records," on page 81.

10.5 Creating Catalog Products Manually

You can manually create catalog products. The catalog product defines the software product but does not include any licenses. To include the software product's licenses in the catalog product, you must associate the catalog product with the purchase records that contain the license purchases.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Catalog Products*.



3. Click *New* > *Catalog Product* to launch the Create New Catalog Product Wizard. Complete the wizard by using information from the following table to fill in the fields.:

Wizard Page	Details
General Information	Fill in the following fields: **Manufacturer:** Specify the manufacturer of the product. **Product:** Specify the name of the product as indicated in your purchase record. This should be as specific as possible. For example, if the product is *Product B (10-License Pack)*, enter that name rather than *Product B*. **Product Type:** Select a product type. **Version:** Specify the product version. **Manufacturer Part Number:** Specify the part number assigned to the product package. **Reseller SKU:** Specify the reseller's SKU. **Licenses Per Package:** Specify the number of licenses that come in the package. **Notes:** Add notes, if any. **Excluded:** Select *Excluded* to remove the product from compliance calculations. Excluded products cannot be associated with licensed products.
New Catalog Product Summary	Review the data.

4 If you have not already done so, click *Finish* to create the catalog product.

5 To add licenses to the catalog product, see Section 10.6, "Adding Purchased Licenses to a Catalog Product," on page 97.

10.6 Adding Purchased Licenses to a Catalog Product

There are two ways to add purchased licenses to a catalog product:

- You can import a purchase record file that includes the purchased licenses. The purchase record is created and, if the software product name in the purchase record matches the catalog product name, the purchased licenses are associated with the catalog product. For instructions, see Section 9.4.1, "Importing Purchase Records," on page 81
- You can manually create a new purchase record and add a purchase detail that is associated with the catalog product. The license quantity included in the purchase detail is added to the catalog product. For instructions, see Section 9.4.2, "Manually Creating Purchase Records," on page 83.

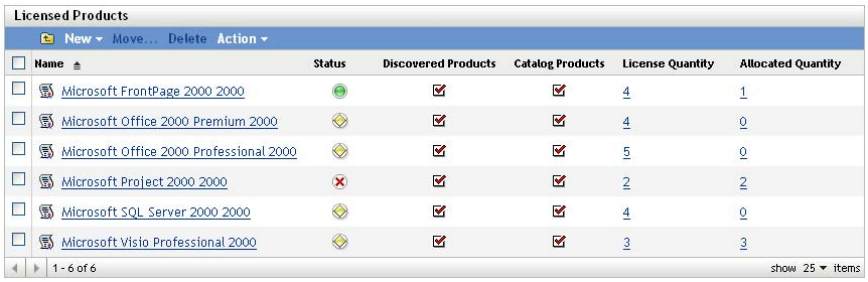
10.7 Adding Catalog Products to a Licensed Product

To populate a licensed product with the number of purchased licenses, you add catalog products to the licensed product's entitlements. There are two ways to add a catalog product to a licensed product's entitlement:

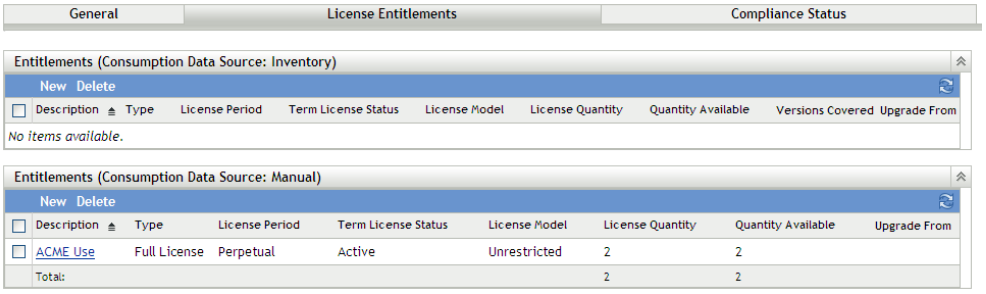
- Section 10.7.1, "Editing an Entitlement to Add Catalog Products," on page 98
- Section 10.7.2, "Using the Catalog Products List to Add Catalog Products," on page 98

10.7.1 Editing an Entitlement to Add Catalog Products

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Licensed Products*.



3. Click the licensed product with the entitlement.
4. Click the *License Entitlements* tab.

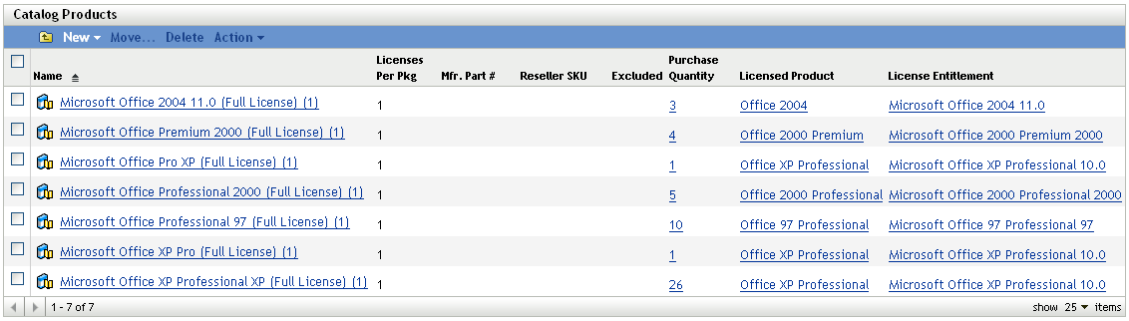


5. In the Entitlements panel, click the entitlement to which you want to add catalog products.
6. Click the *Proof of Ownership* tab.
7. In the Catalog Products panel, click *Add*.
8. Select the desired catalog products, then click *OK* to add them to the Catalog Products panel.

   The Catalog Products panel displays each catalog product's Purchase Quantity, which is the number of units of the catalog product that you've purchased (according to the purchase records). It also displays the License Quantity, which is the total number of licenses included in the purchased units.

10.7.2 Using the Catalog Products List to Add Catalog Products

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Catalog Products*.



3 Select the catalog products that you want to add to an entitlement.

4 Click *Action* > *Add to Licensed Product* to launch the Add Catalog Products to Licensed Product Wizard. Complete the wizard by using the information in the following table:

Wizard Page	Details
Licensed Product	Click to browse for and select the licensed product that contains the entitlement to which you want to add the catalog products.
License Entitlement	Select the entitlement to which you want to add the catalog products,
Summary	Review the data.

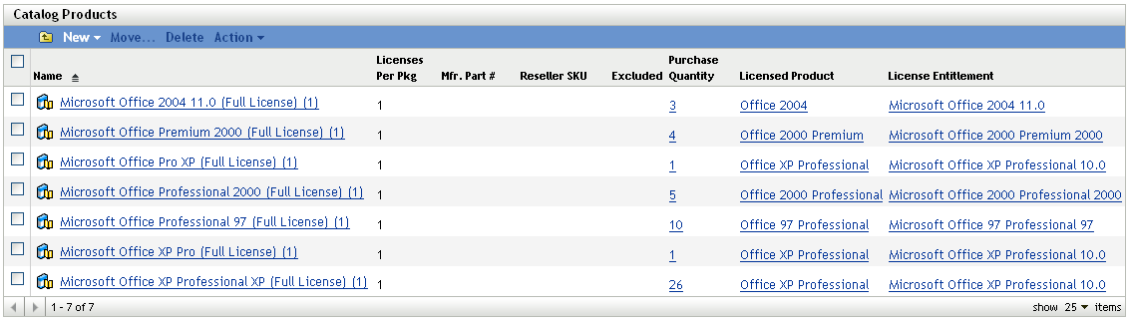
5 If you have not already done so, click *Finish* to add the catalog products to the entitlement.

In the Catalog Products list, each catalog product you added displays the licensed product and entitlement with which it is now associated.

10.8 Creating a Catalog Product Folder

You can create folders in the Catalog Products list to better organize your catalog products. All folders are displayed at the top of the list.

1 In ZENworks Control Center, click *Asset Management* > *License Management* > *Catalog Products* to display the *Catalog Products* page.



2 Click *New* > *Folder* to display the New Folder dialog box.

3 Fill in the following fields:

Name: Specify a name for the folder. The name must be unique among all other folders and catalog products at the same level.

Folder: Browse for and select the folder in which to place the new folder.

Description: Specify any optional information to identify the folder.

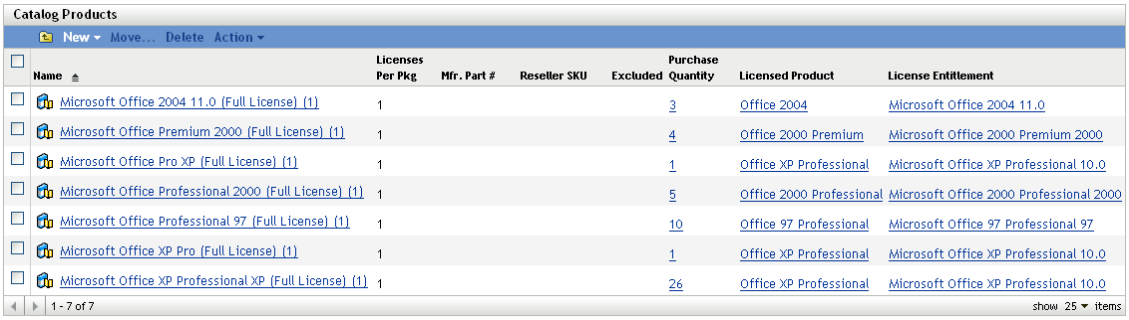
4 Click *OK* to create the folder.

10.9 Viewing a Catalog Product's Purchases

You can view a list of the purchase records from which the catalog product draws its purchased license quantity.

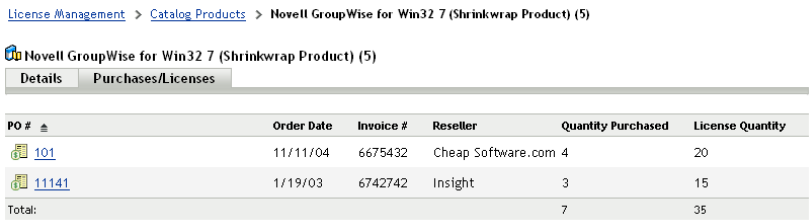
1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Catalog Products*.



3 Click a catalog product to display its Details page.

4 Click the *Purchases/Licenses* tab.



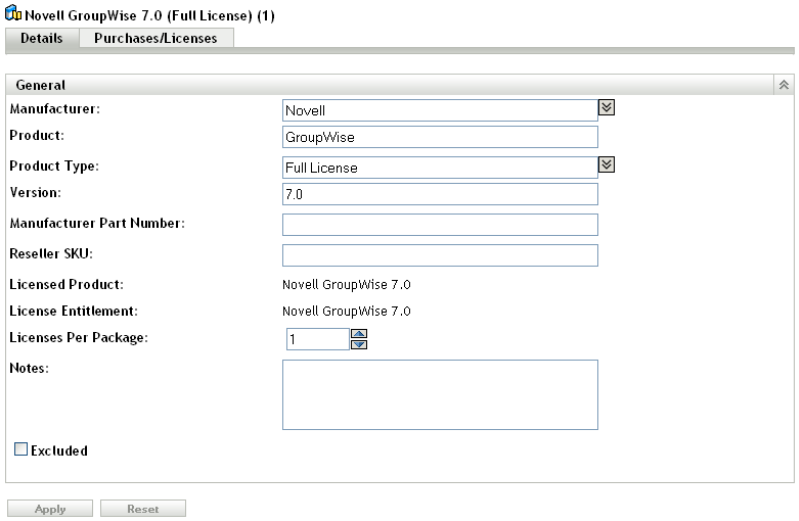
Each purchase record represents a purchase. The Quantity Purchased is the number of units of the catalog product that were purchased. The License Quantity is the total number of licenses included in the purchase.

10.10 Changing a Catalog Product's General Information

A catalog product includes general information such as its manufacturer, product name, version, and licenses per product package. You can modify this information as necessary.

1 In ZENworks Control Center, click *Asset Management* > *License Management* > *Catalog Products* to display the Catalog Products page.

2 In the Catalog Products panel, click the catalog product whose general information you want to edit.



3 Modify the fields as needed:

Manufacturer: Select the product's manufacturer from the list or enter a new manufacturer.

Product: Select a name for the product from the list or enter a new name.

Product Type: Select the product's type from the list or enter a new type.

Version: Specify the product version.

Manufacturer Part Number: Specify the part number that the manufacturer assigned to the software product package represented by the catalog product.

Reseller SKU: Specify the SKU (stock-keeping unit) that the reseller assigned to the software product package represented by the catalog product.

Licensed Product: Displays the licensed product with which the catalog product is associated.

License Entitlement: Displays the entitlement (from the licensed product) with which the catalog product is associated.

Licenses Per Package: Specify the number of licenses included in the software product package (unit) represented by the catalog product. Changing the licenses per package affects the total licenses assigned to the catalog product. For example, if three purchase records include purchases of the product and you change the licenses per package from 10 to 20, the total licenses for the catalog product increases from 30 to 60.

Notes: Add any information you want to retain with the product.

Excluded: Select this option to exclude the catalog product from compliance calculations. Excluded products cannot be added to a licensed product.

4 Click *Apply* to save the changes.

10.11 Deleting a Catalog Product

You can remove a catalog product from the Catalog Products list by deleting it. If the catalog product is assigned to a licensed product, it (and its license quantity) is removed from the licensed product.

1 In ZENworks Control Center, click *Asset Management* > *License Management* > *Catalog Products* to display the Catalog Products page.

2 In the Catalog Products panel, select the catalog product you want to delete.

3 Click *Delete*, then click *OK* to confirm the deletion.

10.12 Moving a Catalog Product

You can move a catalog product from one folder to another in the Catalog Product list.

1. In ZENworks Control Center, click *Asset Management* > *License Management* > *Catalog Products* to display the Catalog Products page.
2. In the Catalog Products panel, select the catalog product you want to move.
3. Click *Move* to display the Move Catalog Product(s) dialog box.
4. Browse for and select the target folder, then click *OK*.

11 Working with Software Collections

In some cases, the ZENworks Knowledgebase might not include a discovered product for a software suite you own. There are various reasons for this, ranging from the suite not yet being defined in the current Knowledgebase to the suite installation not registering as a suite.

A software collection is an administrator-defined suite. You create the software collection and add discovered products as members of the collection. When all of the member products are discovered on a device, the installation count for the software collection is incremented rather than the count for the individual member products. You can assign the software collection to a licensed product just as you would assign an individual discovered product or a suite discovered product.

The following sections explain the tasks associated with managing purchase records:

- Section 11.1, “How Software Collection Installations are Counted,” on page 103
- Section 11.2, “Creating a Software Collection,” on page 104
- Section 11.3, “Adding Products to a Software Collection,” on page 104
- Section 11.4, “Deleting a Software Collection,” on page 105
- Section 11.5, “Creating a Software Collection Folder,” on page 105
- Section 11.6, “Moving a Software Collection,” on page 106

11.1 How Software Collection Installations are Counted

A software collection’s member products can be required or non-required. Required member products must be found on a device in order for the installation to qualify as a software collection installation. Non-required member products, if installed on the machine, are considered part of the software collection but are not required to be installed.

Consider the following example. SoftwareCollection includes three member products:

- ProdA (required)
- ProdB (required)
- ProdC (non-required).

The member products are installed as follows:

- Device1: ProdA, ProdC
- Device2: ProdA, ProdB
- Device3: ProdA, ProdB, ProdC
- Device4: ProdA

The Discovered Products list would show the following:

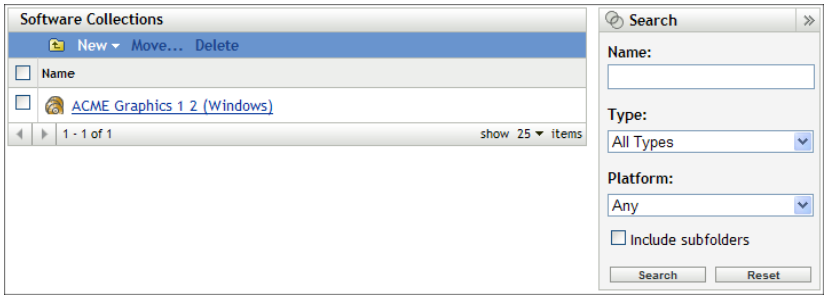
- SoftwareCollection: 2 installations (Device2, Device3)
- ProdA: 2 installations (Device1, Device4)

- ProdB: 0 installations
- ProdC: 1 installation (Device1)

11.2 Creating a Software Collection

1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Software Collections*.



3 Click *New* > *Software Collection* to launch the Create New Software Collection Wizard. Complete the wizard by using information from the following table to fill in the fields:

Wizard Page	Details
General Information	Fill in the following fields: **Manufacturer:** Specify the name of the manufacturer. **Product:** Specify the product name. **Version:** Specify the product version. **Platform:** Specify either Windows or Mac. **Notes:** Add notes, if any.
New Software Collection Summary	Review the summary data. Click *Back* to make changes.

4 If you haven't already done so, click *Finish* to create the software collection.

5 Continue with the next section, Adding Products to a Software Collection.

11.3 Adding Products to a Software Collection

1 In the Software Collections list, click the software collection to which you want to add products.

2 Click the *Member Products* tab.

3 Add discovered products as members of the collection:

3a In the Discovered Products panel, click *Add* > *Installed Discovered Products* if you want to see only discovered products that are installed on devices in your Management Zone.

or

Click *Add* > *Any Discovered Product* to see all discovered products included in the Knowledgebase.

3b Browse for and select the products you want to add, then click *OK* to add them to the Discovered Products list.

4 Mark the member products as required or non-required.

A software collection's member products can be required or non-required. By default, member products are set as *Required* when you add them to the list. Required member products must be present on a device in order for the installation to qualify as a software collection installation. Non-required member products do not need to be present; however, if they are present, their installation is counted under the software collection installation rather than an individual discovered product installation.

4a To change a required product to non-required, select the product by clicking the check box next to it, then click *Action* > *Clear Required*.

4b To change a non-required product to required, select the product by clicking the check box next to it, then click *Action* > *Set Required*.

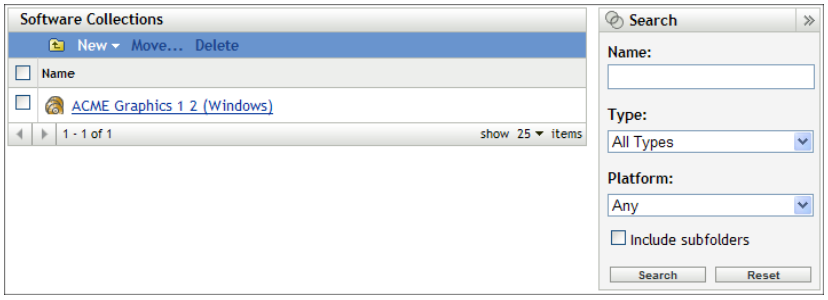
11.4 Deleting a Software Collection

You can remove a software collection from the Software Collections list by deleting it. If the software collection is assigned to a licensed product, it (and its installation quantity) is removed from the licensed product.

Deleting a software collection does not delete the discovered products that are members of the collection.

1 In ZENworks Control Center, click the *Asset Management* tab.

2 Click *Software Collections*.



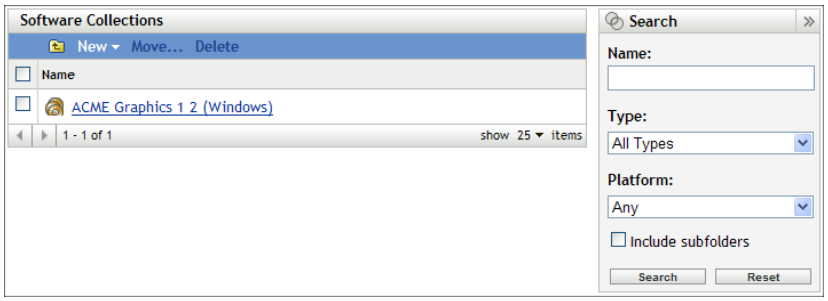
3 In the Software Collections panel, select the collections you want to delete.

4 Click *Delete*.

11.5 Creating a Software Collection Folder

You can create folders in the Software Collections list to better organize your software collections. All folders are displayed at the top of the list.

1 In ZENworks Control Center, click *Asset Management* > *License Management* > *Software Collections* to display the *Software Collections* page.



2 Click *New* > *Folder* to display the New Folder dialog box.

3 Fill in the following fields:

Name: Specify a name for the folder. The name must be unique among all other folders and software collections at the same level.

Folder: Browse for and select the folder in which to place the new folder.

Description: Specify any optional information to identify the folder.

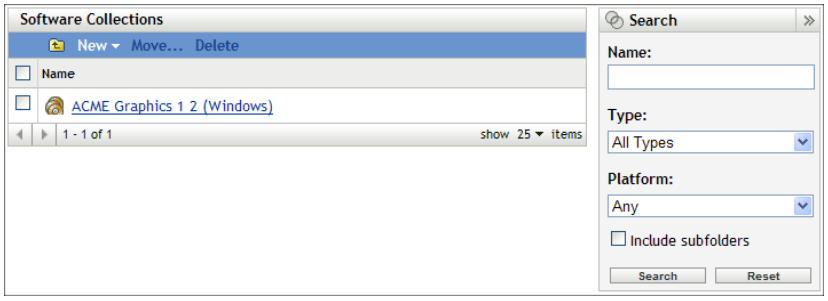
4 Click *OK* to create the folder.

11.6 Moving a Software Collection

You can move a software collection from one folder to another in the Software Collections list.

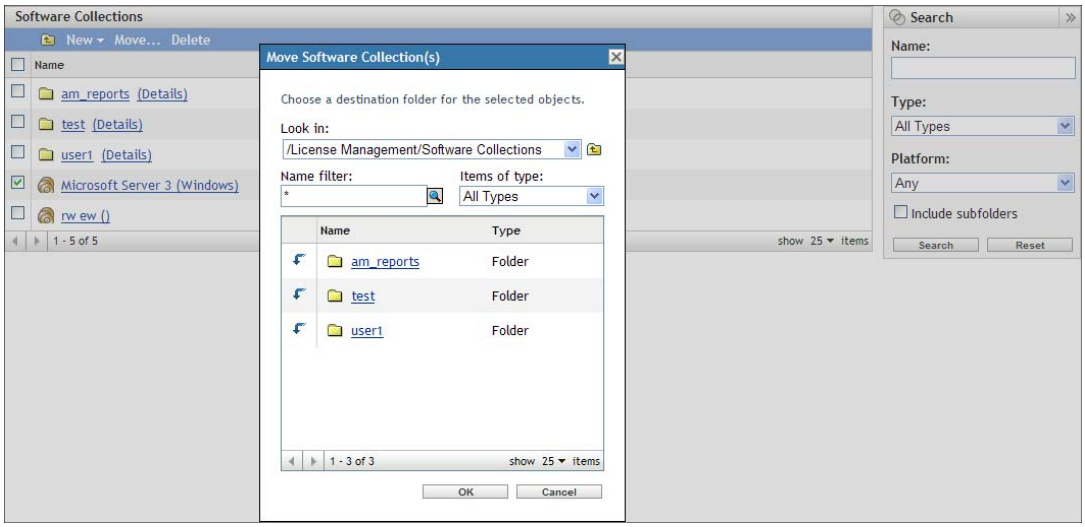
1 In ZENworks Control Center, click the *Asset Management* tab.

2 Click *Software Collections*.



3 In the Software Collections panel, select the collections you want to move.

4 Click *Move*.



5 Select a target folder in the *Move Software Collection(s)* dialog box.

6 Click *OK*.

II License Allocation

Novell ZENworks Asset Management lets you allocate licenses within your organization to track ownership and distribution of the licenses.

- Chapter 12, “License Allocation Concepts,” on page 111
- Chapter 13, “Preparing Demographic Data,” on page 113
- Chapter 14, “Allocating Licenses,” on page 117
- Chapter 15, “Working with License Allocations,” on page 125
- Chapter 16, “Generating Allocation Reports,” on page 129

12 License Allocation Concepts

Allocating licenses to devices, departments, sites, and cost centers lets you track and maintain license ownership within your organization.

The following sections introduce the concepts you should understand to effectively use Asset Management to allocate licenses:

- Section 12.1, “Allocation vs. Compliance,” on page 111
- Section 12.2, “Device Allocations and Demographic Allocations,” on page 111

12.1 Allocation vs. Compliance

License allocation is an accounting tool; it assigns licenses to devices, departments, sites, or cost centers to track license distribution and ownership. *License compliance* is an evaluation tool; it compares a product’s license quantities against its installation quantities to determine a compliance status.

With the exception that both are based on licensed products, license allocation and license compliance are independent of one another. Allocating licenses does not affect the number of purchased licenses or installations for a product, and therefore does not affect the license compliance status for the product.

For example, assume that DepartmentQ purchased 30 licenses of ProductA. However, DepartmentQ has 35 installations of the product, which means that the license compliance status for ProductA is undercompliant (too few licenses for the number of installations). You decide to allocate 35 licenses to DepartmentQ, which you can do even though you only have 30 purchased licenses. The compliance status remains undercompliant because the purchased licenses, not the allocated licenses, are used when calculating compliance.

In some instances, license allocations might help you resolve compliance problems. For example, you notice that Product A is undercompliant by four licenses. You check the license allocation information for Product A and see that 14 licenses are allocated to DepartmentQ and 14 devices associated with DepartmentQ have Product A installed. At the same time, you see that 12 licenses are allocated to DepartmentZ but 16 devices associated with DepartmentZ have Product A installed. You know that you need to work with DepartmentZ to resolve the compliance problem.

12.2 Device Allocations and Demographic Allocations

You can allocate licenses to devices and to demographics (sites, departments, or cost centers).

A *device allocation* is the assignment of a license to a specific device. The device can have the product installed or not installed. For example, you purchase 10 licenses of ProductA. You can allocate the licenses to the target devices before ProductA is even installed on the devices.

A *demographic allocation* is the assignment of one or more licenses to a site, department, or cost center. Any device that is assigned the demographic and has the product installed shows up as an installation associated with the allocation. For example, you purchase 15 licenses of ProductA and

allocate them to DepartmentQ. There are 20 devices assigned to DepartmentQ. Of those 20 devices, 12 have ProductA installed. The result is that the DepartmentQ allocation shows 15 allocated licenses with 12 installations.

Effective implementation of demographic allocations requires that the devices in your Management Zone include the correct demographic data. This data is stored as part of the device's Inventory data; there are several ways to ensure that devices include the correct data. These methods are discussed in Chapter 13, "Preparing Demographic Data," on page 113.

A single licensed product can include both types of allocations. For example, DepartmentQ purchases 15 ProductA licenses. At the same time, your IT organization purchases 10 ProductA licenses for miscellaneous use throughout the organization. You allocate 15 licenses to DepartmentQ and then allocate individual licenses (from your pool of 10 IT licenses) to the devices of any other users who request to install ProductA.

For information about creating allocations, see Chapter 14, "Allocating Licenses," on page 117.

13 Preparing Demographic Data

Before you can allocate licenses based on demographic data (departments, sites, or cost centers), you need to ensure that your devices and purchase records contain the appropriate demographic data. The following sections provide information:

- Section 13.1, "Adding Demographic Data to Devices," on page 113
- Section 13.2, "Adding Demographic Data to Purchase Records," on page 114
- Section 13.3, "Adding Demographic Data to Purchase Record Import Files," on page 115
- Section 13.4, "Making Demographic Data Consistent Between Devices and Purchase Records," on page 116

If you plan to allocate licenses directly to devices, you can ignore demographic data and continue with Chapter 14, "Allocating Licenses," on page 117.

13.1 Adding Demographic Data to Devices

Each device's Inventory data contains three demographic fields: *Site*, *Department*, and *Cost Center*. Adding this demographic data to devices does the following:

- Creates the list of demographics (for example, Site1, CostCenterA, or Department12) to which licenses can be allocated. When you allocate licenses, you can allocate them only to sites, departments, and cost centers that already exist in Inventory device data or purchase record data.
- Enables a device's installations to be tracked against the license allocations. For example, you allocate 10 ProductA licenses to Site1. If Device1 is associated with Site1, Device1's installation of ProductA is tracked against Site1's allocations. Otherwise, it is not.
- Enables you to use the Initialize Allocations Wizard to create a licensed product's initial allocations based on the devices' demographic data. For example, assume that you are initializing license allocations for ProductA based on the Site demographic. Device1, Device2, and Device3 have ProductA installed. Device1 and Device2 are assigned to Site1 and Device3 is assigned to Site2. The wizard allocates two licenses to Site1 (for Device1 and Device2) and one license to Site2 (for Device3).

If all your license allocations will use the same demographic (Site, Department, or Cost Center), you can add only that demographic data to each device. For example, if all demographic allocations are going to be Department allocations, you only need to add a department to each device. If you will have a mixture of demographic allocations, you should add a site, department, and cost center to each device.

There are three ways you can add demographic data to a device:

- Use ZENworks Control Center to manually enter the data for each device. To do so, go to a device's Inventory page, click the *Detailed Hardware/Software Inventory* link, click *Edit* (at the bottom of the page), then provide information in the *Site*, *Department*, and *Cost Center* fields.

- Distribute an electronic data collection form to individuals and have them supply the demographic data. For instructions, see "Scanning Demographic Data" in the *ZENworks 11 Asset Inventory Reference*.
- Import demographic data from device objects in your LDAP directory. For instructions, see "Importing Demographic Data" in the *ZENworks 11 Asset Inventory Reference*.

13.2 Adding Demographic Data to Purchase Records

Adding demographic data to purchase records is optional. You need to do so only if you want to do either of the following:

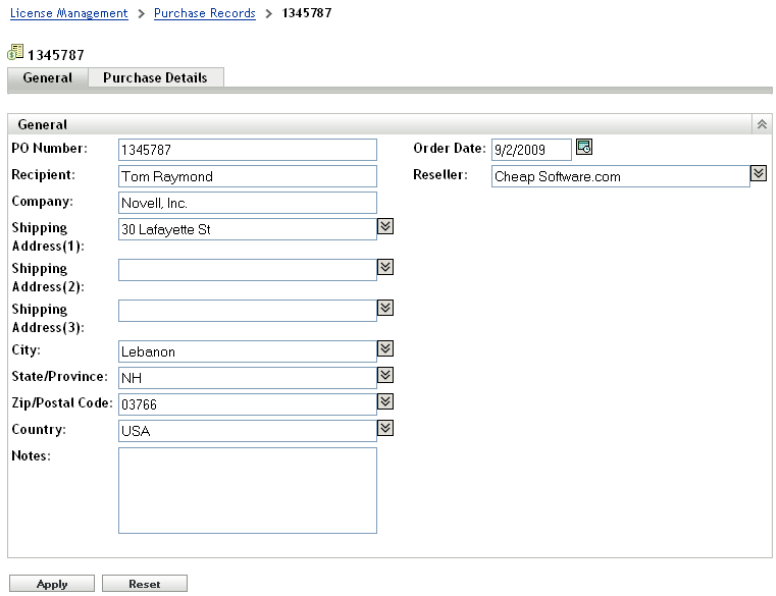
- Use the purchase record data to create the list of demographics (for example, Site1, CostCenterA, or Department12) to which licenses can be allocated. When you allocate licenses, you can only allocate them to sites, departments, and cost centers that already exist in device or purchase record data.
- Use the Initialize Allocations Wizard to create a licensed product's initial demographic allocations based on the demographic data in the purchase records. For example, assume that you are initializing license allocations for ProductA based on the Department demographic. PurchaseRecord1 includes 10 ProductA licenses assigned to DepartmentQ. PurchaseRecord2 includes 20 ProductA licenses assigned to DepartmentZ. The wizard allocates 10 licenses to DepartmentQ and 20 licenses to DepartmentZ.

If all your license allocations will use the same demographic (Site, Department, or Cost Center), you can assign only that demographic data to each purchase record. For example, if all demographic allocations are going to be Department allocations, you only need to assign a department to each purchase record. If you will have a mixture of demographic allocations, you should assign a site, department, and cost center to each purchase record.

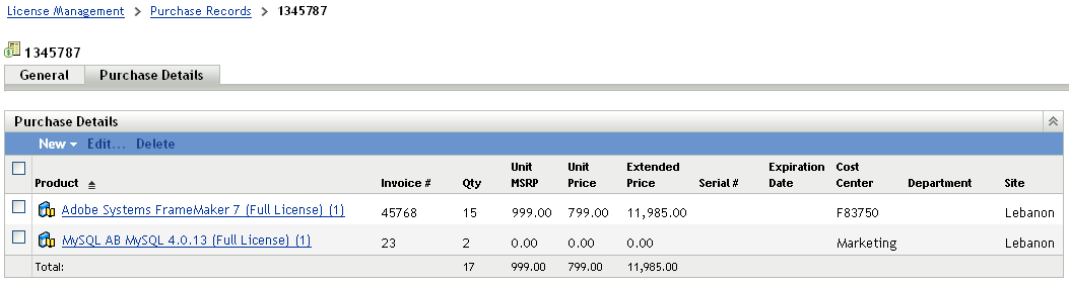
To add demographic data to an existing purchase record:

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Purchase Records*.

3. Click the purchase record to which you want to add demographic data.



4 Click the *Purchase Details* tab.



You add the demographic data to the purchase detail associated with the product.

5 Select the check box next to the purchase record detail, then click *Edit*.

6 Edit the *Cost Center*, *Department*, and *Site* fields to supply the appropriate data.

For each field, you can select an existing value from the list or you can type a new value.

7 Click *OK* to save the changes.

13.3 Adding Demographic Data to Purchase Record Import Files

Adding demographic data to purchase record import files is optional. You need to do so only if you want to automatically update existing demographic allocation counts for a licensed product when you import a new purchase record containing the product or if you want to initialize allocations using purchase records.

For example, assume that ProductA has a DepartmentQ allocation of 20 licenses. You import another purchase record that includes 15 ProductA licenses for DepartmentQ. The additional 15 licenses are automatically reflected in the DepartmentQ allocation.

Each product line item (or detail) in an import file includes *Site*, *Department*, and *Cost Center* fields. These are the fields that must contain the appropriate information. For information about editing an import file, see Section 9.9, “Working with Import Files,” on page 87.

13.4 Making Demographic Data Consistent Between Devices and Purchase Records

As demographic data is added to devices and purchase records, different values might be used to represent the same site, department, or cost center. For example, the same site might be represented by Site1 in the Inventory device data and SiteOne in purchase record data.

Inconsistent data can cause problems when Asset Management tries to match product installations to demographic allocations. For example, if you create a SiteOne allocation from the purchase record demographic data, any product installations on a device assigned to Site1 are not matched to the SiteOne allocation.

In order to synchronize your demographic data, you can replace your purchase records demographic values with values from your Inventory device data. For example, you could replace all occurrences of SiteOne in purchase records with Site1.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Purchase Records*.

3. In the Purchase Records list, click *Action*, then click *Replace Site Demographic*, *Replace Department Demographic*, or *Replace Cost Center Demographic*.
4. In the Demographic Value dialog box, fill in the following fields:

   ***Demographic* value from Purchase Records:** Select the value you want to replace in your purchase records. The list includes an empty value; if you select the empty value, all empty fields for the demographic (Site, Department, or Cost Center) are replaced.

   ***Demographic* value from Inventory:** Select the replacement value.
5. Click *OK*.

14 Allocating Licenses

There are two methods you can use to allocate a product's licenses to devices or demographics (sites, departments, or cost centers). You can use the Initialize Allocations Wizard to automatically create allocations based on device and purchase record data available in your Asset Management system. Or, you can manually create the allocations. Instructions for both methods are included in the following sections:

- Section 14.1, "Initializing Allocations," on page 117
- Section 14.2, "Manually Adding Demographic Allocations," on page 120
- Section 14.3, "Manually Adding Device Allocations," on page 121

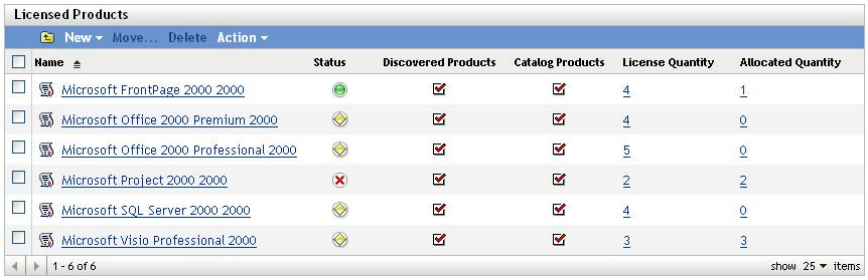
14.1 Initializing Allocations

You can use the Initialize Allocations Wizard to create either device allocations or demographic allocations for a licensed product. After creating the initial allocations you can add additional allocations or modify the initial allocations.

If you plan to create demographic allocations, you should ensure that your devices and purchase records include the correct demographic data. For information, see Chapter 13, "Preparing Demographic Data," on page 113.

To initialize allocations for a licensed product:

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Licensed Products*.



3. In the Licensed Products list, select the check box next to the licensed product whose allocations you want to initialize.

   You can select multiple products. If you do so, all selected products are initialized with the same type of allocation (device or demographic) from the same data source (Inventory device data or purchase records).
4. Click *Action* > *Initialize Allocations*, then click *OK* to acknowledge that any existing allocations for the selected products will be removed.

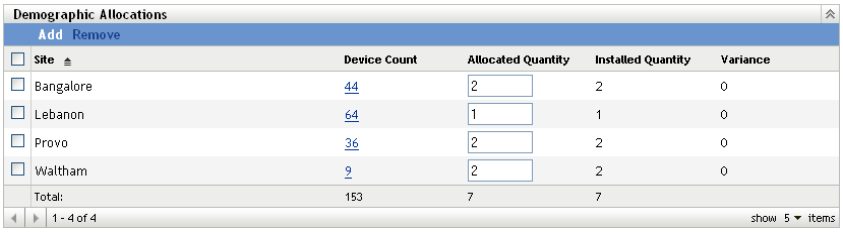
5 Complete the Initialize Allocations Wizard by using information from the following table to fill in the fields.

Wizard Page	Details
Allocation Type	Select *Device* if you want to allocate a license to each device that has the product installed. Select *Demographic*, then select *Site*, *Department*, or *Cost Center* if you want to allocate licenses to sites, departments, or cost centers.
Allocation Data Source	If you are creating device allocations, the *Initialize from Inventory* option is the only enabled option. The wizard searches the Inventory data to find devices that have the product installed and then allocates a license to each device. If you are creating demographic allocations, select the data source you want to use to create the license allocations: ◆ **Initialize from Purchase Records:** Allocates licenses based on demographic data found in your purchase records. For example, assume that you are initializing license allocations for ProductA based on the Department demographic. PurchaseRecord1 includes 10 ProductA licenses assigned to DepartmentQ. PurchaseRecord2 includes 20 ProductA licenses assigned to DepartmentZ. For ProductA, the wizard allocates 10 licenses to DepartmentQ and 20 licenses to DepartmentZ. ◆ **Initialize from Inventory:** Allocates licenses based on demographic data associated with Inventory device data. For example, assume that you are initializing license allocations for ProductA based on the Site demographic. Device1, Device2, and Device3 have ProductA installed. Device1 and Device2 are assigned to Site1 and Device3 is assigned to Site2. The wizard allocates two licenses to Site1 (for Device1 and Device2) and one license to Site 2 (for Device3). ◆ **Update License Allocations Based on Demographic Data in Future Purchase Record Imports:** When importing future purchase records, updates the allocated license quantity if the purchase record contains the appropriate demographic data. For example, assume that you import another purchase record that includes ProductA licenses that are assigned to DepartmentQ. The additional licenses are automatically reflected in the DepartmentQ demographic allocation. Also creates new allocations if necessary. For example, if a purchase record includes ProductA licenses that are assigned to a DepartmentZ (a new department not listed in ProductA's allocations), a new allocation for DepartmentZ is created.
Initialize Allocations Summary	Review your data.

6 If you have not already done so, click *Finish* to create the license allocations.

7 To see the license allocations, locate the licensed product in the Licensed Products list and click the number in the *Allocated Quantity* column.

Demographic allocations created by the wizard are listed in the Demographic Allocations panel.



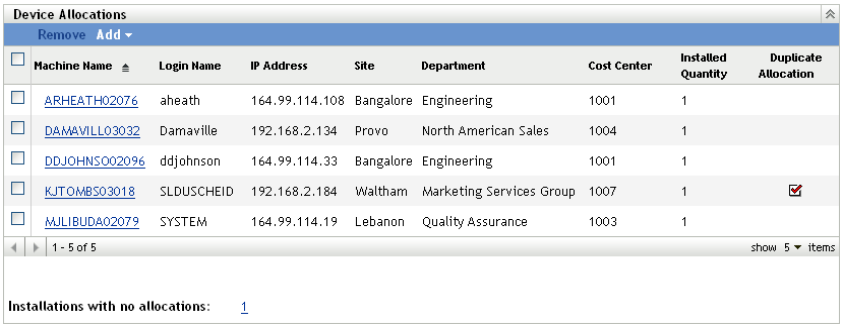
The following information is provided for each demographic allocation:

- **Device Count:** The number of devices assigned to the demographic. Click the number to display a list of the devices.
- **Allocated Quantity:** The number of licenses allocated to the demographic. You can change this number to allocate more or fewer licenses.
- **Installed Quantity:** The number of product installations on devices assigned to the demographic.
- **Variance:** The difference between the number of allocated licenses and the number of product installations assigned to the demographic:

  ```
  Allocated Quantity - Installed Quantity = Variance
  ```

  A negative variance indicates more product installations than allocated licenses, and a positive variance indicates more allocated licenses than product installations.

Device allocations created by the wizard are listed in the Device Allocations panel.



The following information is provided for each device allocation:

- **Machine Name, Login Name, and IP Address:** Standard information about the device, including the login name of the user who was logged in at the time the device was inventoried.
- **Site, Department, Cost Center:** Demographic data about the device. If one or more of the fields is empty, the device's inventory data does not contain that information.
- **Installed Quantity:** The number of installations of the licensed product on the device. This should typically be 1.
- **Duplicate Allocation:** Includes a check mark if the device's installation is also included in a demographic allocation.
- **Installations with No Allocations:** Displays the number of installations that are not allocated a license either through a demographic allocation or a device allocation. Click the number to display the list of installations.

8 If necessary, add additional allocations or modify the existing allocations. Refer to the following sections for instructions:

- Section 14.2, "Manually Adding Demographic Allocations," on page 120

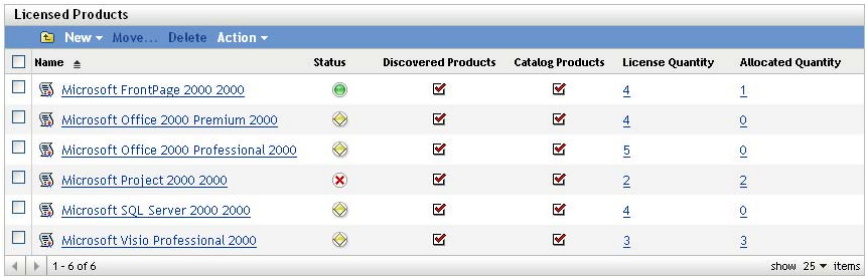
- Section 15.1, “Adjusting the License Quantity for a Demographic Allocation,” on page 125
- Section 14.3, “Manually Adding Device Allocations,” on page 121
- Section 15.2, “Removing Allocations,” on page 126

If you find that adding additional demographic data to devices or purchase records might result in better initial allocations for the product, you can add the data and then run the Initialize Allocations Wizard again. Any existing allocations are removed before the new ones are added.

14.2 Manually Adding Demographic Allocations

You can allocate a product’s licenses to sites, departments, or cost centers. The demographic value (for example, Site1, DepartmentQ, or Cost Center123) must already exist as a value in your Inventory device data or purchase records data.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Licensed Products*.



3. In the Licensed Products list, click the licensed product for which you want to allocate licenses.
4. By default, only device allocation is enabled to track ownership for product licenses. To allocate licenses to demographics a user has to perform the following steps to enable demographic allocation for the product:

   4a Click the *General* tab.

   4b In the License Allocation Settings panel, fill in the following fields:

   Enable demographic allocations: Select this option.

   Demographic allocation type: All demographic allocations for a single licensed product must be of the same type. Select the type (*Site*, *Department*, *Cost Center*) you want to use for this product.

   Update license allocations with demographic data from future purchase record imports:

   Select this option if, when importing future purchase records for the product, you want to automatically update the allocated license quantity based on the purchase record’s demographic data.

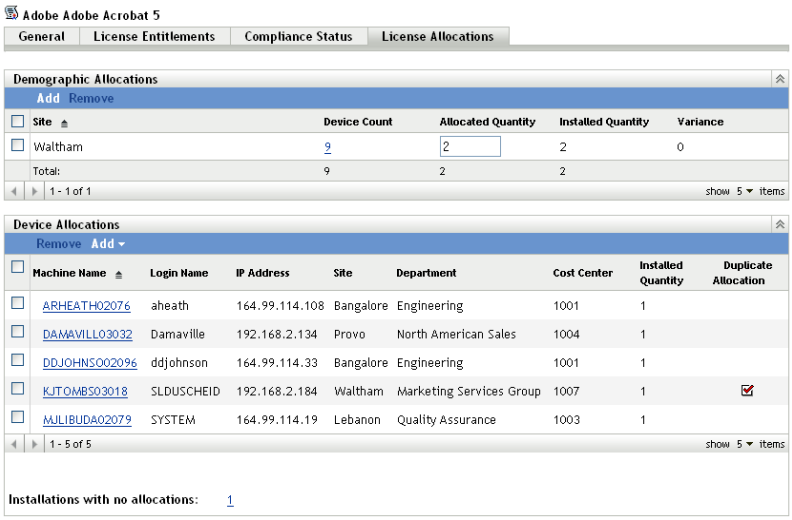
   For example, assume that the product is using Department allocations. You import a purchase record that includes licenses assigned to DepartmentQ. The licenses are added as a DepartmentQ demographic allocation.

   Also creates new allocations if necessary. For example, if a purchase record includes ProductA licenses that are assigned to a DepartmentZ (a new department not listed in ProductA’s allocations), a new allocation for DepartmentZ is created.

   Allocated Quantity: Displays the total number of allocated licenses, either to devices or to demographics.

   4c Click *Apply* to save any changes.

5 Click the *License Allocations* tab.



6 In the Demographic Allocations panel, click *Add*, then fill in the following fields:

***Demographic*:** Select the desired demographic (site, department, or cost center) from the list.

Allocated Quantity: Specify the number of licenses to allocate to the demographic.

7 Click *OK* to add the allocation to the list.

The following information is provided for the allocation:

- **Device Count:** The number of devices assigned to the demographic. Click the number to display a list of the devices.
- **Allocated Quantity:** The number of licenses allocated to the demographic. You can change this number to allocate more or fewer licenses.
- **Installed Quantity:** The number of product installations on devices assigned to the demographic.
- **Variance:** The difference between the number of allocated licenses and the number of product installations assigned to the demographic:

  ```
  Allocated Quantity - Installed Quantity = Variance
  ```

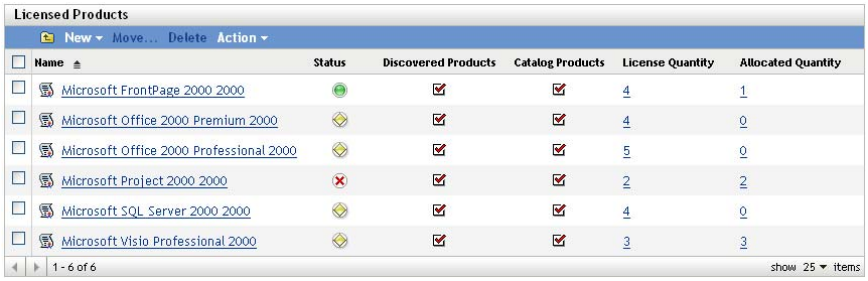
  A negative variance indicates more product installations than allocated licenses, and a positive variance indicates more allocated licenses than product installations.

14.3 Manually Adding Device Allocations

You can allocate licenses to a specific devices. The devices can have the product installed or not installed. For example, you purchase 10 licenses of ProductA. You can allocate the licenses to the target devices before ProductA is even installed on the devices.

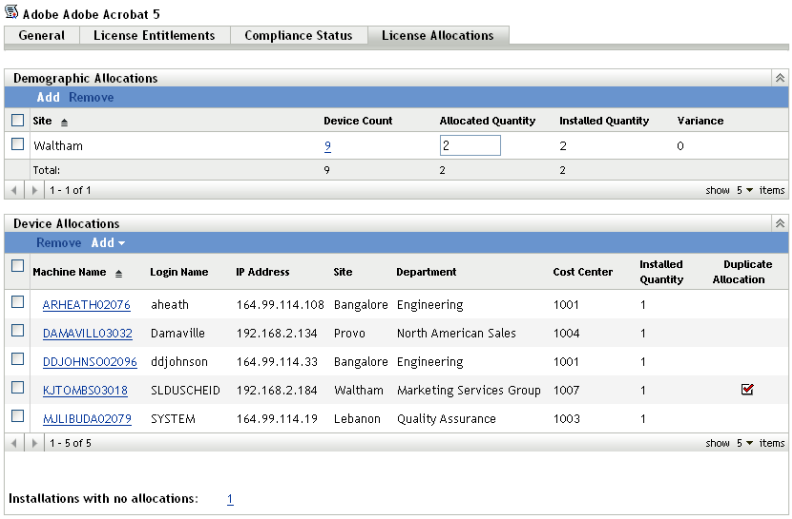
1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Licensed Products*.



3 In the Licensed Products list, click the licensed product for which you want to allocate licenses.

4 Click the *License Allocations* tab.



5 (Optional) To see which devices have the product installed but do not have an allocated license, click the *Installations with no allocations* number in the Device Allocations panel.

6 Click *Add* > *Devices with Product Installed* if the device you want to allocate a license to has the product installed.

or

Click *Add* > *Any Devices* if the device you want to allocate a license to does not have the product installed.

The Search for Device dialog box is displayed.

7 In the *Device Type* field, select whether you want to search *Managed Devices*, *Inventoried Devices*, *Managed or Inventoried Devices*, *ZAM Migrated Devices*, or *All*.

If you are not sure of the device type, select *All*.

8 To limit the search, use the filters to create the search criteria.

If you don't create filters, all devices (or all devices with the product installed) are displayed, up to the maximum display number.

9 Specify the maximum number of devices you want the search to display.

10 Select the columns you want displayed in the resulting search dialog box. Control-click to select multiple fields.

11 Click *Search* to display a Select Device dialog box that lists the search results.

12 Select the devices you want to allocate licenses to, then click *OK*.

The following information is provided for the allocation:

- **Machine Name, Login Name, and IP Address:** Standard information about the device, including the login name of the user who was logged in at the time the device was inventoried.
- **Site, Department, Cost Center:** Demographic data about the device. If one or more of the fields is empty, the device's inventory data does not contain that information.
- **Installed Quantity:** The number of installations of the licensed product on the device. This should typically be 1.
- **Duplicate Allocation:** Includes a check mark if the device's installation is also included in a demographic allocation.
- **Installations with No Allocations:** Displays the number of installations that are not allocated a license either through a demographic allocation or a device allocation. Click the number to display the list of installations.

15 Working with License Allocations

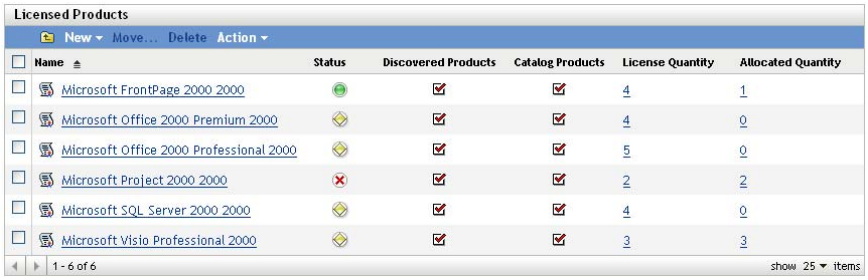
The following sections help you manage existing license allocations. For information about adding license allocations, see Chapter 14, "Allocating Licenses," on page 117.

- Section 15.1, "Adjusting the License Quantity for a Demographic Allocation," on page 125
- Section 15.2, "Removing Allocations," on page 126

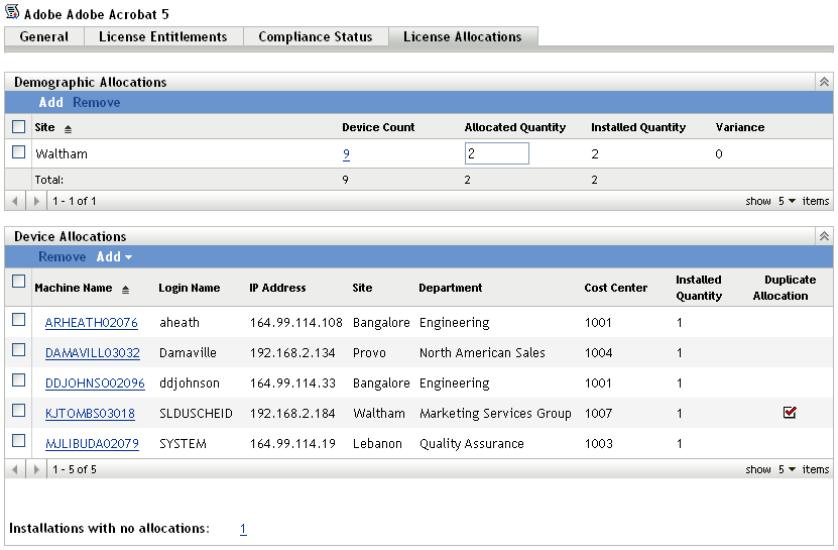
15.1 Adjusting the License Quantity for a Demographic Allocation

You can manually increase or decrease the number of licenses allocated to a site, department, or cost center.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Licensed Products*.



3. In the Licensed Products list, click the licensed product whose license allocations you want to adjust.
4. Click the *License Allocations* tab.



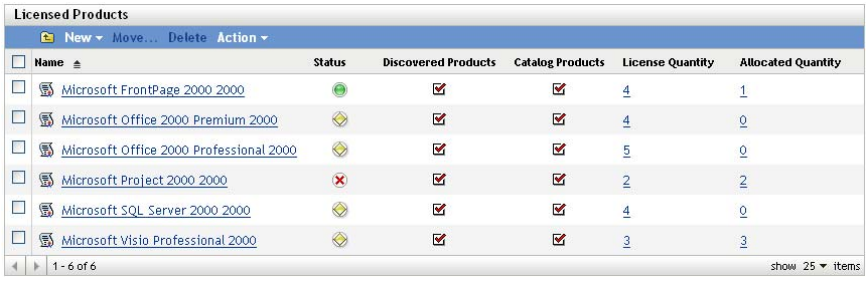
5 Locate the allocation in the Demographic Allocations panel, then change the number in the *Allocated Quantity* column.

6 Click *Apply* to save the changes.

15.2 Removing Allocations

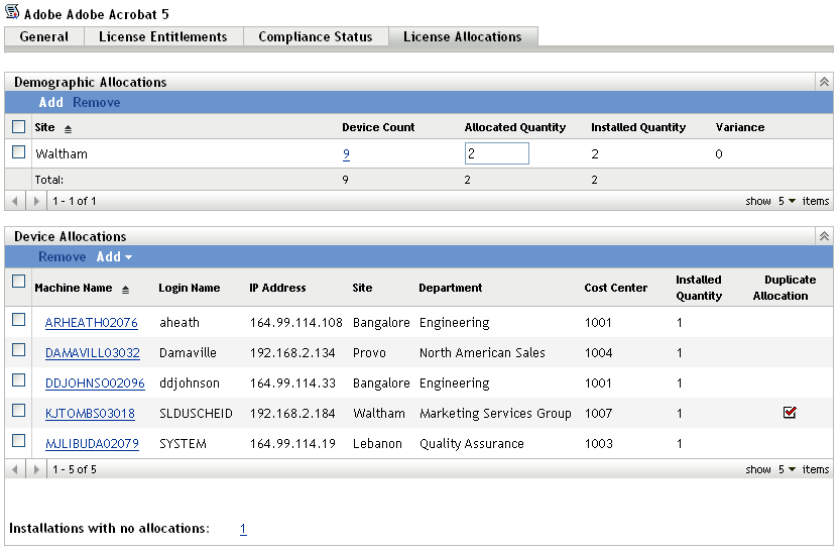
1 In ZENworks Control Center, click the *Asset Management* tab.

2 On the License Management page, click *Licensed Products*.



3 In the Licensed Products list, click the licensed product from which you want to remove allocate licenses.

4 Click the *License Allocations* tab.



5 Select the check box next to the allocation you want to remove, then click *Remove*.

16 Generating Allocation Reports

ZENworks Asset Management includes a variety of reports that you can generate to view allocation and allocation-related data. In addition to viewing predefined reports, you can create custom reports and export reports to several file formats.

The ZENworks Reporting Server is used to generate allocation reports. For information about the ZENworks Reporting Server and the available allocation reports, see Chapter 33, “Working with ZENworks Reporting Reports,” on page 197.

III Software Usage

Novell ZENworks Asset Management lets you track software usage on individual devices within your organization. Knowing the demand for particular applications can help you better manage the number of licenses you need.

- Chapter 17, “Software Usage Concepts,” on page 133
- Chapter 18, “Configuring Usage Settings,” on page 135
- Chapter 19, “Setting Up Web Applications,” on page 137
- Chapter 20, “Monitoring Usage,” on page 139
- Chapter 21, “Generating Usage Reports,” on page 143

17 Software Usage Concepts

Tracking application use in an organization can be useful yet challenging. Knowing the demand for an application can help you better predict how many licenses you really need. Does it make sense to order 10 new license for ProductA when four installations of the product are not being actively used? Or does it make more sense to reallocate licenses and order fewer new licenses?

ZENworks Asset Management helps you make better decisions by tracking software usage on devices throughout your Management Zone. You can view basic usage data directly in ZENworks Control Center or generate detailed reports for analysis.

The following sections introduce the concepts you should understand to effectively use Asset Management to monitor software usage:

- Section 17.1, "Software That Is Tracked," on page 133
- Section 17.2, "When Usage Data Is Collected," on page 133
- Section 17.3, "Basic Usage Data vs. Detailed Usage Data," on page 134

17.1 Software That Is Tracked

Asset Management tracks usage for the following software:

- **Installed Discovered Products:** Software products, defined in the ZENworks Knowledgebase,that are installed on devices in your Management Zone.
- **Local Software Products:** Installed software products that you define because they are not registered as discovered products in the ZENworks Knowledgebase. In essence, they are administrator-defined discovered products. When they are defined, they are displayed in the Discovered Products list.
- **Software Files:** Installed software files that are not included in the ZENworks Knowledgebase and for which no local software products have been created.
- **Web Applications:** Web applications or pages that are hosted on either internal or external Web sites. Web applications are not discovered automatically; you must create them.

Asset Management tracks executable (`.exe`) files to collect usage data. Therefore, it does not track thin-client applications launched from Citrix servers and Windows Terminal Servers. It tracks the thin-client usage itself, just not the applications run within the thin client.

17.2 When Usage Data Is Collected

Usage data is collected from devices during software inventory scans. You can schedule regular software inventory scans to control how often usage data is collected. For instructions, see "Scanning Managed Devices" in the *ZENworks 11 Asset Inventory Reference*.

17.3 Basic Usage Data vs. Detailed Usage Data

You can view basic usage data for a product, such as number of active installations and hours used, through various ZENworks Control Center pages (see Chapter 20, “Monitoring Usage,” on page 139).

For detailed information, however, you must generate usage reports. Usage reports let you analyze usage data from multiple perspectives, such as the following:

- Usage by product type (local application, network server application, and Web application).
- Usage by product, user, or device.
- Usage over a specific time period.

For information about generating reports, see Chapter 21, “Generating Usage Reports,” on page 143.

18 Configuring Usage Settings

There are two ZENworks Management Zone settings related to software usage. One setting enables software usage to be collected and the other setting determines whether usage data is displayed in the ZENworks Control Center interface or only in software usage reports.

To configure the settings:

1. In the ZENworks Control Center, click the *Configuration* tab.
2. In the Management Zone Settings panel, click *Asset Management* to display the settings.
3. Click *Usage Monitoring*, make sure that the *Enable Usage Monitoring* option is selected, then click *OK*.

   If this option is not enabled, no usage statistics are collected from devices.
4. Click *Usage Display*.

   You can decide whether or not to show usage data on License Management pages in ZENworks Control Center. Displaying usage data can cause the pages to load more slowly while the usage data is retrieved. For information about where usage data is displayed, see Chapter 20, "Monitoring Usage," on page 139.
5. If you want usage data displayed on the License Management pages in ZENworks Control Center, deselect the *Do not show usage on License Management pages* option.

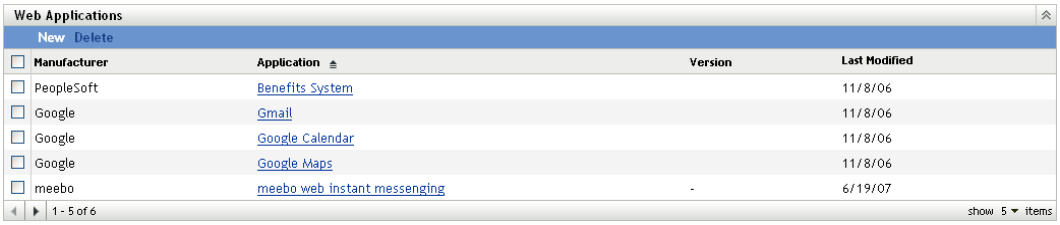
   or

   If you only want usage data available by generating software usage reports, select the *Do not show usage on License Management pages* option.
6. Click *OK* to save your changes.

19 Setting Up Web Applications

ZENworks Asset Management lets you monitor the usage of Web-based applications or pages. You must define the Web applications before you can generate usage reports.

1. In ZENworks Control Center, click the *Configuration* tab.
2. Click the *Asset Management* tab to display the Web Applications panel.



3. In the Web Applications panel, click *New* to launch the Create New Web Application Wizard. Complete the wizard by using the information in the following table to fill in the fields.

Wizard Page	Details
Application Naming	Fill in the following fields: **Manufacturer:** The manufacturer of the Web application. **Application:** The application name. **Version:** The version of the application.
Application Recognition	A Web application is recognized by the text that is displayed in the browser window's title bar, excluding the browser name, when viewing the application. You can specify one or more titles to associate with the Web application. A Web application is considered to be in use until all windows you have defined are closed. 1. In the *Window Title(s)* field, specify the title bar text that defines the application. You can use * and ? wildcards in your window titles. The * wildcard represents any number of characters, The ? wildcard represents a single character. For example, you could create a single Web application for all Google pages with the window title ***Google***, or you could create separate applications for Google Search and Google Maps with ***Google Search*** and ***Google Maps***. 2. Click *Add*. 3. Repeat for additional values. Use the *Edit* and *Remove* buttons to change or delete values.
Summary	Review your data. Use the *Back* button to edit the specified values.

4 Click *Finish* to add the application to the Web Applications list.

Web Application Usage in Browsers

Calculating the Web application usage differs for Internet Explorer and Firefox browsers. If you open multiple tabs in a Firefox browser, only the tab that is currently being viewed or that has input focus is monitored for usage. The tabs that are not in active usage are not monitored. However, in Internet Explorer, the run-time usage is calculated for all open tabs, whether they are in active usage or not.

20 Monitoring Usage

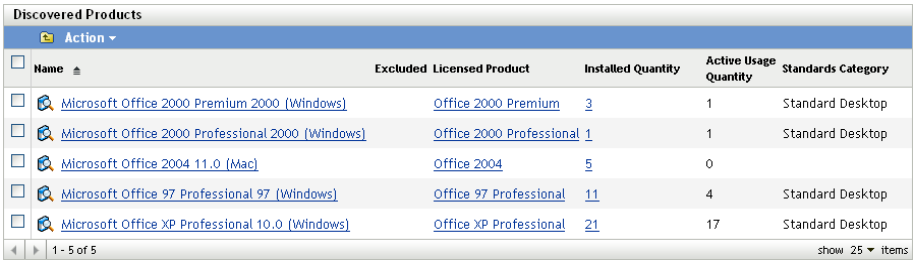
There a several locations in ZENworks Control Center where you can view basic usage data for products. The following sections cover these locations:

- Section 20.1, “Discovered Products List,” on page 139
- Section 20.2, “Licensed Product’s Compliance Status Page,” on page 139
- Section 20.3, “Discovered Product’s Installation/Consumption Page,” on page 140

20.1 Discovered Products List

The Active Usage column in the Discovered Products list displays the number of installations of a product that have been used during the current usage period.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Discovered Products*.



You can do the following to manipulate the data in the list:

- The *Usage Period* field, displayed above the list, determines the time period for the usage data. To change the time period, click *Action* > *Update Usage Time Period*, select a new usage period, then click *OK*.
- Filter the list to display only the products that have been used. In the Search panel, set the *Usage Status* field to *With Usage*, then click *Search*.

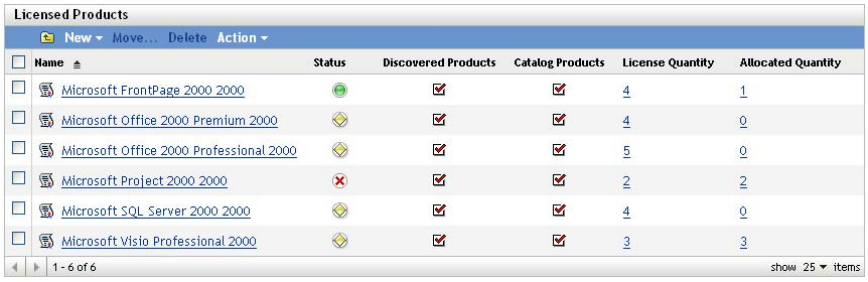
If you want to see the usage hours for each installation, you can drill down into the discovered product. See “Discovered Product’s Installation/Consumption Page” on page 140.

20.2 Licensed Product’s Compliance Status Page

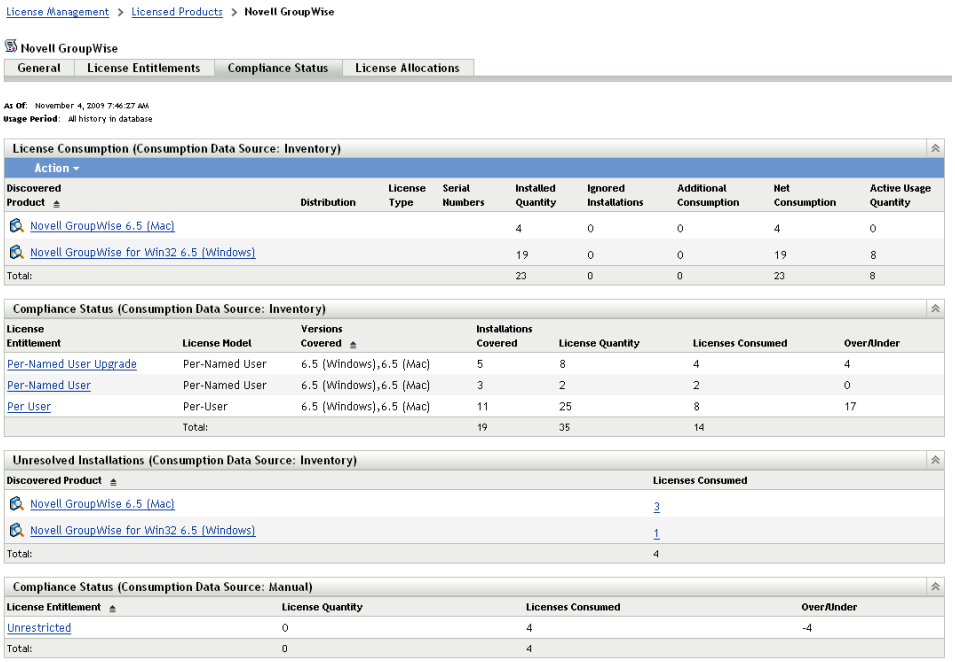
A licensed product’s Compliance Status page shows the same usage data as the Discovered Products list. The difference is that the Compliance Status page displays only the discovered products assigned to the licensed product.

To access a licensed product's Compliance Status page:

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Licensed Products*.



3. Click the licensed product's status icon (., , or) to display the product's Compliance Status page.



The *Active Usage* column in the License Consumption (Consumption Data Source: Inventory) panel displays the number of installations of a product that have been used during the current usage period.

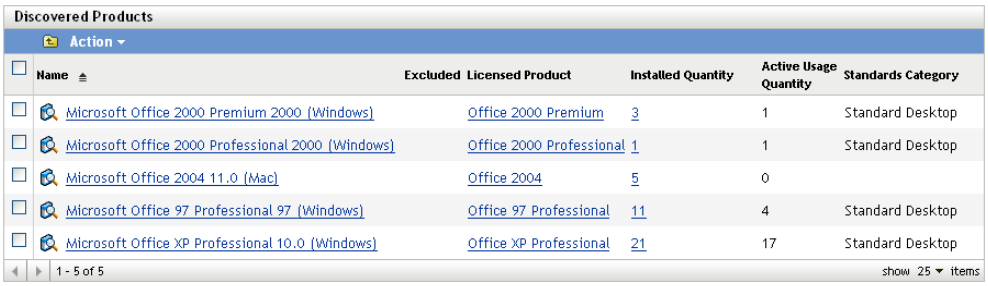
The *Usage Period* field, displayed above the License Consumption panel, determines the time period for the usage data. To change the time period, click *Action* > *Update Usage Time Period*, select a new usage period, then click *OK*.

20.3 Discovered Product's Installation/Consumption Page

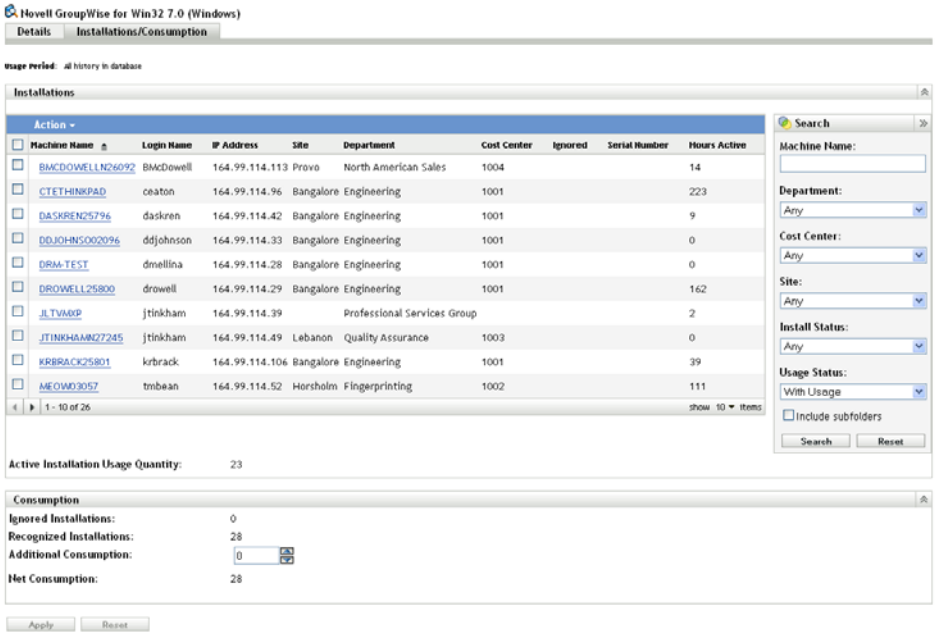
A discovered product's Installation/Consumption page shows the number of usage hours for each installation.

To access a discovered product's Installation/Consumption page:

1. In ZENworks Control Center, click the *Asset Management* tab.
2. On the License Management page, click *Discovered Products*.



3. Click the discovered product's *Installed Quantity* number to display the product's Installation/Consumption page.



In the Installations panel, the *Hours Active* column indicates the number of hours the product has been used on the device during the current usage period.

The *Usage Period* field, displayed above the list, determines the time period for the usage data. To change the time period, click *Action* > *Update Usage Time Period*, select a new usage period, then click *OK*.

You can also filter the list to display only the products that have been used. In the Search panel, set the *Usage Status* field to *With Usage*, then click *Search*.

21 Generating Usage Reports

ZENworks Asset Management includes a variety of reports that you can generate to view usage data. In addition to viewing predefined reports, you can create custom reports and export reports to several file formats.

The compliance report information is combined with the license management and contract management report information in Part VI, “Reports,” on page 171. The following list provides direct links to usage report sections:

- Descriptions for all standard and custom reports: Chapter 28, “Standard and Custom Report Descriptions,” on page 173.
- How to run standard reports: Chapter 31, “Working with Standard Reports,” on page 183.
- How to create and generate custom reports: Chapter 32, “Working with Custom Reports,” on page 187

IV Contracts

Novell ZENworks Asset Management lets you manage contracts for your organization's assets.

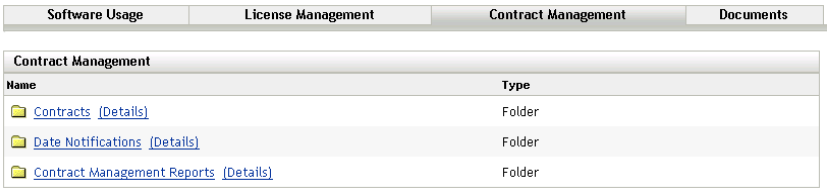
- Chapter 22, "Creating New Contracts," on page 147
- Chapter 23, "Working with Existing Contracts," on page 151
- Chapter 24, "Working with Date Notifications," on page 155
- Chapter 25, "Generating Contract Reports," on page 161

22 Creating New Contracts

ZENworks Asset Management lets you create contract records (typically referred to simply as *contracts*) for your organization's assets. You can then monitor the status of the contracts and generate reports showing various contract details.

To create a contract:

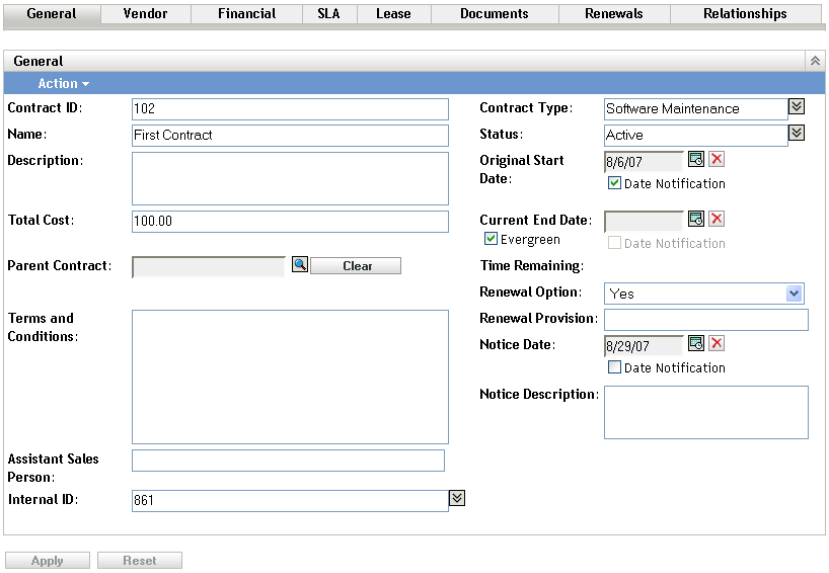
1. In ZENworks Control Center, click the *Asset Management* tab.
2. Click the *Contract Management* tab.



3. Click *Contracts*.
4. In the Contracts panel, click *New* > *Contract* to launch the Create New Contract Wizard. Complete the wizard by using information from the following table to fill in the fields:

Wizard Page	Details
General Contract Information	Fill in the following fields: **Contract ID:** Specify a unique identifier for the contract. Required. **Name:** Specify a descriptive name for the contract. Required. **Description:** Provide any additional text to identify the contract. **Total Cost:** Specify the total cost of the contract from start date to current end date. This field forms the basis for the contract's financial information, including annualized cost and cost per association (asset, user, department, and so forth). **Parent Contract:** If this contract has a child relationship to another contract, click the *Browse* button to find and select the parent contract, then click *OK*. **Terms and Conditions:** Specify any terms and conditions. **Contract Type:** Select one of the fourteen predefined contract types or type a custom one of your own. **Status:** Select *Pending, Active*, or *Expired*. You can also type a custom status of your own. **Original Start Date:** Click to select the beginning date for the contract. This date and the end date are required for annualized financial information. **Current End Date:** Click to select the current end date for the contract. If the contract never ends, select the Evergreen option. This date and the start date are required for annualized financial information. **Renewal Option:** Select *Yes* if the contract includes an option to renew. Otherwise, select *No*. **Renewal Provision:** Specify any renewal provision. **Notice Date:** If the contract includes a notice, click to select the notice date. **Notice Description:** Specify a description for the notice.
Vendor Information	Specify the vendor information in the fields. For each field, select an existing value or type a new value.
Lease	This page is displayed only for Lease contracts. Specify the lease information for the contract.
New Contract Summary	Review the information you entered. Use the *Back* button to go back.

5 On the New Contract Summary page, select *Define Additional Properties*, then click *Finish*. The contract is created and displayed.



6 Add the desired contract information by clicking a tab and filling in the fields. Each tab is described below.

General: Add basic information for the contract. In addition to modifying the information provided when the contract was created, you can set up e-mail notifications for the start, end, and notice dates. For instructions, see Chapter 24, "Working with Date Notifications," on page 155.

Vendor: Add vendor information for the contract. You can modify the fields if necessary.

Financial: This is a non-editable page that displays the contract's financial data. The data is calculated from information provided on the other pages.

- Total Cost: This data requires that the Total Cost be defined on the General page.
- Total Cost per *Item*: This is displayed when the *Item* is included on the Relationships page. For example, if you have associated the contract with license entitlements on the Relationships page, the *Per Licensed Product* field displays the total cost per licensed product.
- Annualized Cost: This data requires that an *Original Start Date* and *Current End Date* be defined on the General page.
- Annualized Cost per *Item*: This is displayed if the *Item* is included on the Relationships page. For example, if you have associated the contract with license entitlements on the Relationships page, the *Per Licensed Product* field displays the annualized cost per licensed product.

SLA: Add Service Level Agreements for the contract. For each SLA you add, you can include the service level metric, actual service level, start date, and end date. You can also configure e-mail notifications for the start and end dates. For instructions, see Chapter 24, "Working with Date Notifications," on page 155.

Lease: Add lease information for the contract. For each of the date fields, you can configure e-mail notifications. For instructions, see Chapter 24, "Working with Date Notifications," on page 155.

Documents: Attach documents to the contract. This could be an electronic copy of the contract or other supporting documents. The document must already have been added to the Asset Management system. For more information about adding documents, see Section 23.5, "Adding Documents to Contracts," on page 154.

Renewals: Renew the contract by adding the renewal date and new end date. Each renewal record is added to the Renewal History list.

Relationships: Associate the contract with devices, users, licensed products, and demographics (sites, departments, and cost centers).

23 Working with Existing Contracts

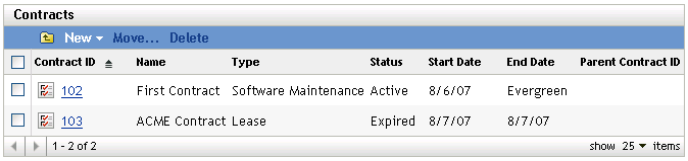
The following sections explain the tasks associated with managing existing contracts. For information about creating new contracts, see Chapter 22, "Creating New Contracts," on page 147.

- Section 23.1, "Viewing the Contracts List," on page 151
- Section 23.2, "Filtering the Contracts List," on page 152
- Section 23.3, "Creating a Contracts Folder," on page 153
- Section 23.4, "Copying an Existing Contract," on page 153
- Section 23.5, "Adding Documents to Contracts," on page 154

23.1 Viewing the Contracts List

You can view a list of all of your contracts. The list provides general information about each contract, such as its status, start date, and end date.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. Click the *Contract Management* tab, then click *Contracts*.



The list provides the following information for each contract:

Contract ID: The identification number given to the contract. You can click the contract ID to display the contract's details.

Name: The descriptive name given to the contract.

Type: The type of contract (for example, *Lease*, *SLA*, or *Technical Support*).

Status: The status of the contract. The status changes automatically depending on the current date and the contract's start and end dates.

- *Pending*: The current date is before the start date.
- *Active* The current date falls between the start and end dates.
- *Expired*: The current date is after the end date.

Start Date: The first effective date for the contract.

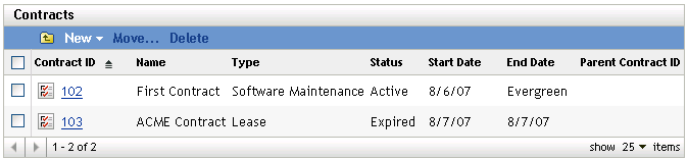
End Date: The last effective date for the contract.

Parent Contract ID: If the contract has been assigned a child relationship with another contract, this is the ID of the parent contract.

23.2 Filtering the Contracts List

You can filter the Contracts list to display only the contracts that meet certain criteria.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. Click the Contract Management tab, then click *Contracts*.



3. In the Search panel (located next to the Contracts panel), specify the criteria to use for the filter. A contract must match all criteria to be displayed.

   Contract ID: Specify the text that the contract ID (or folder name) must include. This is a partial match field that is case-insensitive. If the text you enter is included in any part of a contract ID, the contract matches the criteria.

   Type: Select whether you want to match folders, contracts, or both.

   Contract Type: Select a specific contract type, or select *Any* to match any contract type.

   Contract Status: Select one of the following to match:

   - *Any*: Ignore the contract status. Match any contract.
   - Active: Match contracts that are currently within their start date and end date.
   - *Expired*: Match contracts that have passed their end date.
   - *Pending*: Match contracts whose start date is in the future.

   Expiration Status: Select one of the following to match:

   - *Any*: Ignore the expiration status. Match any contract.
   - *Expired*: Match contracts that have passed their end date.
   - *Expiring within 60 Days:* Match contracts with end dates that are within 60 days of the current date.
   - *Not Expiring within 60 Days*: Match contracts with end dates that are beyond 60 days of the current date.

   Program Name: Select a specific vendor program name, or select *Any* to match any program name.

   Current End Date: Select one of the following to match:

   - *Any*: Ignore the end date. Match any contract.
   - *On*: Match contracts with end dates that are the same as the date you select. Click to select the date.
   - *Before*: Match contracts with end dates that are before the date you select. Click to select the date.
   - *After*: Match contracts with end dates that are after the date you select. Click to select the date.

   Contract Field: Select one of the listed fields and specify a value, or select *Any* to ignore the criteria.

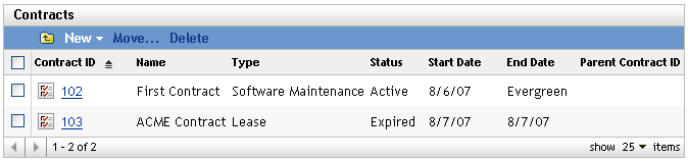
Include Subfolders: Select this option to search the current folder and its subfolders.

4 Click *Search* to apply the search criteria and filter the list.

23.3 Creating a Contracts Folder

You can create folders in the Contracts list to better organize your contracts. All folders are displayed at the top of the list.

1 In ZENworks Control Center, click *Asset Management* > *Contract Management* > *Contracts* to display the Contracts page.



2 Click *New* > *Folder* to display the New Folder dialog box.

3 Fill in the following fields:

Name: Specify a name for the folder. The name must be unique among all other folders and contracts at the same level.

Folder: Browse for and select the folder in which to place the new folder.

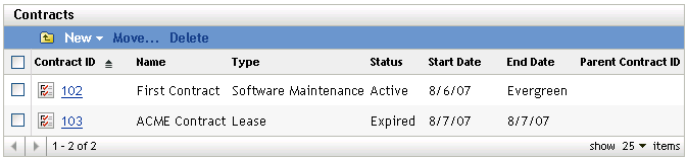
Description: Specify any optional information to identify the folder.

4 Click *OK* to create the folder.

23.4 Copying an Existing Contract

You can copy an existing contract to create a new contract. When you do so, the copy retains the general information, vendor information, lease information, and documents. All date information is removed.

1 In ZENworks Control Center, click *Asset Management* > *Contract Management* > *Contracts* to display the Contracts page.



2 In the Contracts panel, select the check box next to the contract you want to copy, then click *Copy* to display the Copy Contract dialog box.

3 Fill in the following fields:

Contract ID: Specify a new identifier for the contract. The contract ID cannot be the same as any other contract ID in the folder.

Name: Specify a new name for the contract

Parent Contract: If you want to designate the source contract as this contract's parent, select *Source contract*. If you want to designate the source contract's parent as this contract's parent, select *Same parent as source*. Otherwise, select *No parent*.

If you need to designate some other contract as the parent, you can create the contract and then edit it. At that point, you can select any existing contract.

4 Click *OK* to create the new contract and add it to the *Contracts* list.

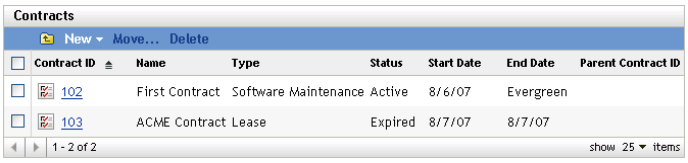
23.5 Adding Documents to Contracts

Many physical contracts have physical documents associated with them. To retain the physical documents with the contract in your Asset Management system, you can add electronic versions of the documents to the contract.

The following instructions assume that you have already uploaded the electronic documents to your Asset Management system. If not, see Part V, "Documents," on page 163.

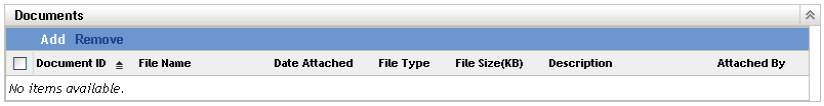
To add documents to a contract:

1 In ZENworks Control Center, click *Asset Management* > *Contract Management* > *Contracts* to display the Contracts page.



2 Click the contract.

3 Click the *Documents* tab.



4 In the Documents panel, click *Add*.

5 Browse for and select the documents you want to add, then click *OK* to add them to Documents list.

24 Working with Date Notifications

Contracts include many dates that can be important to track. For example, you might want to know when a contract is about to expire or when leased hardware is scheduled for delivery. To automate this tracking process, you can enable e-mail notifications for important dates.

The following sections provide information to help you create and manage date notifications:

- Section 24.1, "Specifying an E-Mail Server," on page 155
- Section 24.2, "Configuring Default Settings," on page 155
- Section 24.3, "Adding Date Notifications to a Contract," on page 156
- Section 24.4, "Viewing the Date Notifications List," on page 158
- Section 24.5, "Filtering the Date Notifications List," on page 158
- Section 24.6, "Creating Date Notification Folders," on page 159
- Section 24.7, "Moving a Date Notification," on page 159
- Section 24.8, "Deleting a Date Notification," on page 160

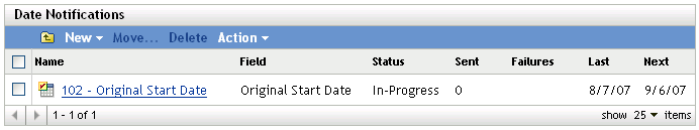
24.1 Specifying an E-Mail Server

For date notifications to be sent, your ZENworks system must have an SMTP server specified as its e-mail server. You configure the e-mail server on the *Configuration* > *Management Zone Settings* > *Event and Messaging* > *SMTP Settings* page.

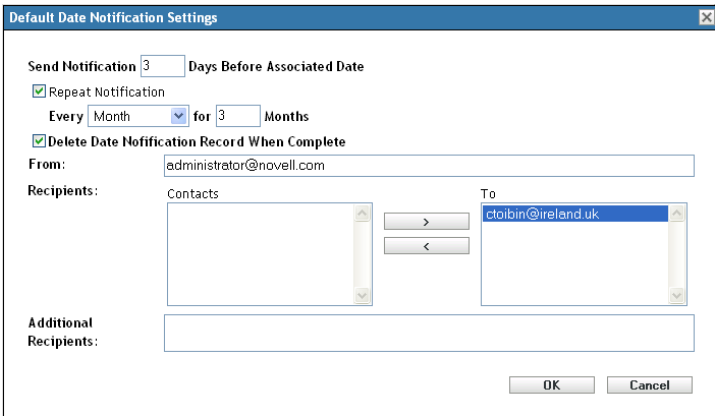
24.2 Configuring Default Settings

Before you can create a notification for a contract date, you must configure the default date notification settings. When you create a date notification, the notification is populated with the default settings. You can then customize the settings as necessary.

1 In ZENworks Control Center, click *Asset Management* > *Contract Management* > *Date Notifications*.



2 Click *Action* > *Default Date Notification Settings*.



3 Set the defaults for the following fields:

Number of days before date to send notification: Specify the lead time for the notification.

Repeat Notification: Select this option to repeat the notification, then select the frequency (*Monthly*, *Weekly*, or *Daily*) and the number of times. For example, if you specify a lead time of 90 days, you could repeat the notification monthly by setting the *Repeat Notification* field to *Monthly* and the *Number of times to repeat* field to *3*.

Delete date notification record when complete: Select this option to delete the notification after all instances of the notification have been sent.

From: Specify the e-mail address you want to appear in the From field of the e-mail notification.

Recipients: You must add at least one default recipient. To do so, you can use this field or the *Additional Recipients* field.

If the Contacts list contains addresses, select an address and move it to the To list. The Contacts list contains e-mail addresses only if they have been imported from the Inventory data (see "Configuring E-mail Addresses" in the *ZENworks 11 Asset Inventory Reference*).

Additional Recipients: You must add at least one default recipient. To do so, you can use this field or the *Recipients* field. To use this field, specify at least one address (for example, pjones@novell.com). Separate addresses with commas.

4 Click *OK*.

24.3 Adding Date Notifications to a Contract

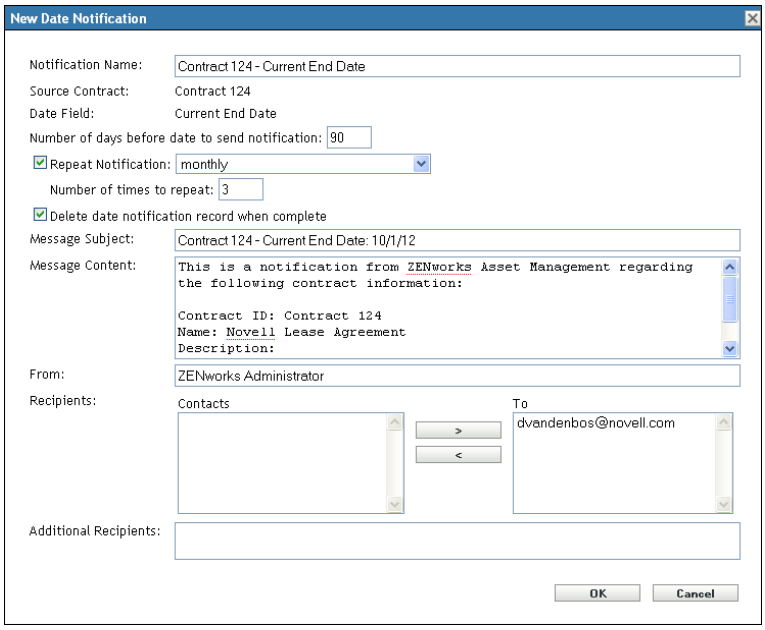
A contract includes the following date fields for which you can configure notifications:

- **General page:** Original Start Date, Current End Date, Notice Date
- **SLA page:** Start Date, End Date
- **Lease page:** Order Date, Ship Date, Delivery Date, Signature Date, Inspection Date, Acceptance Date

To add a date notification to a date field:

1 Locate the date field for which you want to add a notification.

2 Click the check box next to *Date Notification* to display the New Date Notification dialog box.



3 Modify any of the default settings:

Notification Name: Date notifications are added to the Date Notification list. This is the name that identifies the notification in that list. By default, the name includes the contract ID and date fields. If desired, specify a different name.

Source Contract: The contract ID of the source contract.

Date Field: The date field to which the notification applies.

Number of days before date to send notification: Specify the lead time for the notification.

Repeat Notification: Select this option to repeat the notification, then select the frequency (*Monthly*, *Weekly*, or *Daily*) and the number of times. For example, if you specify a lead time of 90 days, you could repeat the notification monthly by setting the *Repeat Notification* field to *Monthly* and the *Number of times to repeat* field to *3*.

Delete date notification record when complete: Select this option to delete the notification after all instances of the notification have been sent.

Message Subject: The default message subject includes the source contract and date field. If desired, specify a different subject.

Message Content: The default message content identifies the contract and the event. You can modify the message content as necessary.

From: Specify the e-mail address you want to appear in the From field of the e-mail notification.

Recipients: You must add at least one default recipient. To do so, you can use this field or the *Additional Recipients* field.

If the Contacts list contains addresses, select an address and move it to the To list. The Contacts list contains e-mail addresses only if they have been imported from the Inventory data (see "Configuring E-mail Addresses" in the *ZENworks 11 Asset Inventory Reference*).

Additional Recipients: You must add at least one default recipient. To do so, you can use this field or the *Recipients* field. To use this field, specify at least one address (for example, pjones@novell.com). Separate addresses with commas.

4 Click *OK* to create the date notification.

The Date Notification check box is enabled. In addition, a date notification record is added to the Date Notifications list (*Configuration* > *Contract Management* > *Date Notifications*). For information about the list, see Section 24.4, "Viewing the Date Notifications List," on page 158.

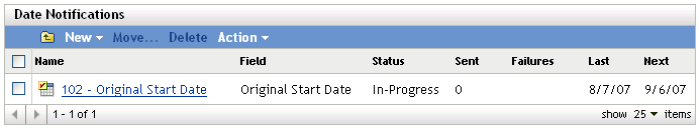
5 Click *Apply* to save the changes to the contract.

24.4 Viewing the Date Notifications List

You can view a list of all date notifications. The list provides general information about each notification, such as its status, number of times sent, and next scheduled send time.

1 In ZENworks Control Center, click the *Asset Management* > *Contract Management*.

2 Click *Date Notifications*.



The list provides the following information for each notification:

Name: The ID of the contract to which the date notification applies. You can click the contract ID to display the contract's details.

Field: The date field to which the notification applies.

Status: The status of the date notification.

- *Pending*: The first notification message has not been sent yet.
- *In-Progress*: One or more notification messages have been sent and more are scheduled to be sent.
- *Completed*: All scheduled notification messages have been sent.
- *Disabled*: The date notification is no longer active.

Sent: The number of notification messages that have been sent.

Failures: The number of sent notification messages that failed. You should ensure that you have specified an e-mail server (*Configuration* > *Management Zone Settings* > *Event and Messaging* > *SMTP Settings*) and that the recipient is a valid.

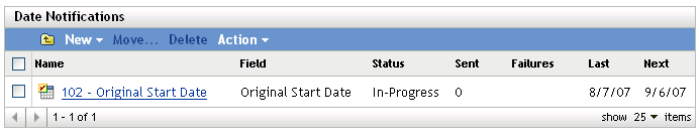
Last: The date of the last notification message attempt.

Next: The date of the next notification message attempt.

24.5 Filtering the Date Notifications List

You can filter the Date Notifications list to display only the notifications that meet certain criteria.

1 In ZENworks Control Center, click the *Asset Management* > *Contract Management* > *Date Notifications*.



2 In the Search panel (located next to the Date Notifications panel), enter the criteria to use for the filter. A notification must match all criteria to be displayed.

Name: Specify the text that the notification name (or folder name) must include. This is a partial match field that is case-insensitive. If the text you enter is included in any part of a name, the notification matches the criteria.

Type: Select whether you want to match folders, date notifications, or both.

Status: Select a status to match, or select *Any* to match any status.

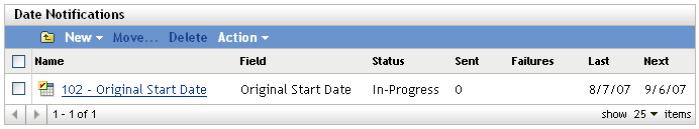
Include Subfolders: Select this option to search the current folder and its subfolders.

3 Click *Search* to apply the search criteria and filter the list.

24.6 Creating Date Notification Folders

You can create folders in the Date Notifications list to better organize your notifications. All folders are displayed at the top of the list.

1 In ZENworks Control Center, click *Asset Management* > *Contract Management* > *Date Notifications*.



2 In the Date Notifications list, click *New* > *Folder* to display the New Folder dialog box.

3 Fill in the following fields:

Name: Specify a name for the folder. The name must be unique among all other folders and notifications at the same level.

Folder: Browse for and select the folder in which to place the new folder.

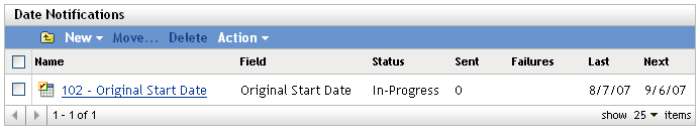
Description: Specify any optional information to identify the folder.

4 Click *OK* to create the folder.

24.7 Moving a Date Notification

You can move a date notification from one folder to another in the Date Notifications list.

1 In ZENworks Control Center, click *Asset Management* > *Contract Management* > *Date Notifications*.



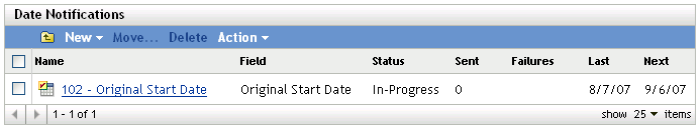
2 Select the notification to move.

3 Click *Move* to display the Move Date Notification(s) dialog box.

4 Browse for and select the target folder, then click *OK*.

24.8 Deleting a Date Notification

1 In ZENworks Control Center, click *Asset Management* > *Contract Management* > *Date Notifications*.



2 Select the check box next to the notification you want to delete.

3 Click *Delete*, then click *OK* to confirm the deletion.

You can also delete a date notification by deselecting the *Date Notification* check box associated with the appropriate date field. For example, you could delete the Current End Date notification by deselecting the *Date Notification* check box for the *Current End Date* field on the contract's General page.

25 Generating Contract Reports

ZENworks Asset Management includes a variety of reports that you can generate to view contract data. In addition to viewing predefined reports, you can create custom reports and export reports to several file formats.

The contract report information is combined with the software usage and license management report information in Part VI, “Reports,” on page 171. The following list provides direct links to compliance report sections:

- Descriptions for all standard and custom reports: Chapter 28, “Standard and Custom Report Descriptions,” on page 173.
- How to run standard reports: Chapter 31, “Working with Standard Reports,” on page 183
- How to create and generate custom reports: Chapter 32, “Working with Custom Reports,” on page 187.

V Documents

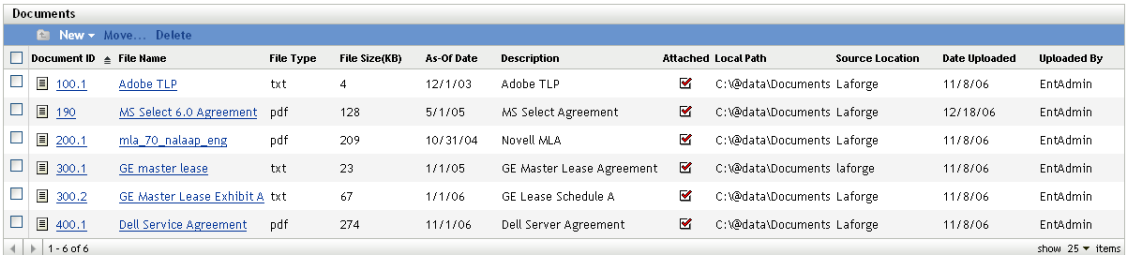
Novell ZENworks Asset Management lets you upload document files and associate them with licensed products, contracts, and purchase summary records.

- Chapter 26, “Uploading Documents,” on page 165
- Chapter 27, “Working with Documents,” on page 167

26 Uploading Documents

Before you can add a document to a licensed product, contract, or purchase summary record, you must upload it to the Asset Management system. Uploaded documents are stored in the ZENworks database.

1 In ZENworks Control Center, click *Asset Management* > *Documents*.



2 In the Documents panel, click *New* > *Upload Document* to launch the Upload New Document Wizard. Complete the wizard by using information from the following table to fill in the fields:

Wizard Page	Details
Specify Document File to Add	Specify the file in the *File Name* field or click *Browse* to search.
Document File Information	Fill in the following fields: **Document ID:** Specify a file ID. **Local Path:** Displays the path of the file. **Source Location:** Specify the location of the source file. **As-Of Date:** Click the calendar icon to select a date. **Description:** Add a description, if needed.
New Document Summary	Review the data entered. Use the *Back* button to make corrections.

3 Click *Finish* to upload the document.

27 Working with Documents

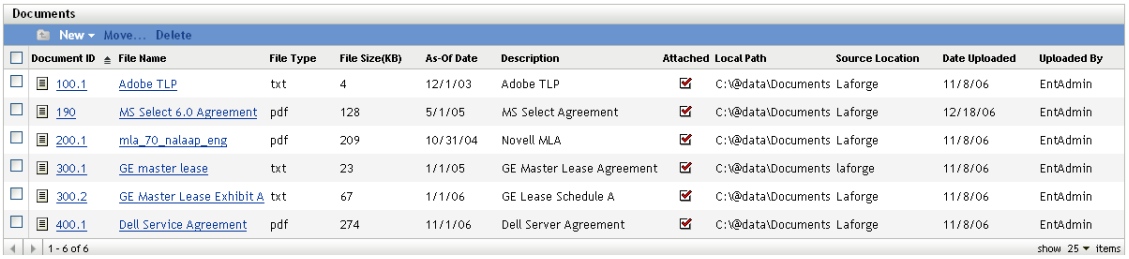
The following sections explain the tasks associated with managing existing documents. For information about adding documents to your Asset Management system, see Chapter 26, "Uploading Documents," on page 165.

- Section 27.1, "Viewing the Documents List," on page 167
- Section 27.2, "Filtering the Documents List," on page 168
- Section 27.3, "Creating a Documents Folder," on page 168
- Section 27.4, "Attaching Documents to Licensed Products, Contracts, and Purchase Summary Records," on page 169

27.1 Viewing the Documents List

You can view a list of all of your documents. The list provides general information about each document, such as its name, file type, upload date, and whether or not it is associated with a licensed product, contract, or purchase summary record.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. Click the *Documents* tab.



The list provides the following information for each document:

Document ID: The identification number given to the document. You can click the document ID to display the document's details.

File Name: The document's filename.

File Type: The document's file extension.

File Size (KB): The document's file size in kilobytes.

As-Of Date: The document's last edit date provided during the document upload.

Description: Any description text provided during the document upload.

Attached: Includes a check mark if the document is associated with a licensed product, contract, or purchase summary record.

Local Path: The document's local path.

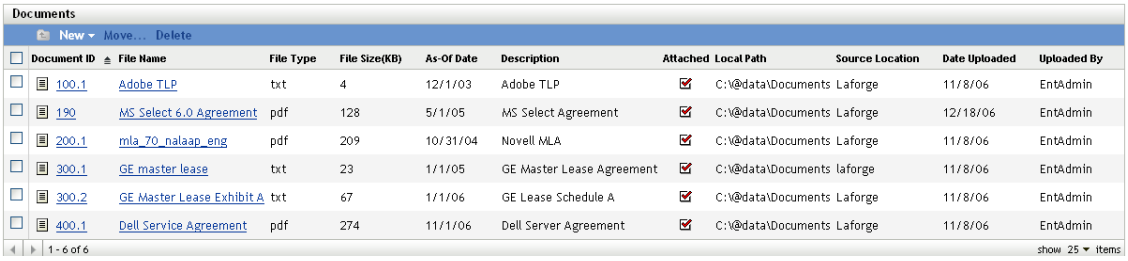
Source Location: The document's source location provided during the document upload.

Date Uploaded: The date the document was uploaded.

27.2 Filtering the Documents List

You can filter the Documents list to display only the documents that meet certain criteria.

1 In ZENworks Control Center, click *Asset Management* > *Documents*.



2 In the Search panel (located next to the Documents panel), specify the criteria to use for the filter. A contract must match all criteria to be displayed.

Document ID: Specify the text that the document ID (or folder name) must include. This is a partial match field that is case-insensitive. If the text you enter is included in any part of a document ID, the document matches the criteria.

File Name: Specify the text that the file name must include. This is a partial match field that is case-insensitive. If the text you enter is included in any part of a filename, the document matches the criteria.

Type: Select whether you want to match folders, documents, or both.

File Type: Select a specific file type, or select *Any* to match any file type.

Attachment Status: Select one of the following to match:

- *Any*: Ignore the attachment status. Match any document.
- *Attached*: Match documents that are associated with licensed products, contracts, or purchase summary records.
- *Not Attached*: Match documents that are not associated with licensed products, contracts, or purchase records.

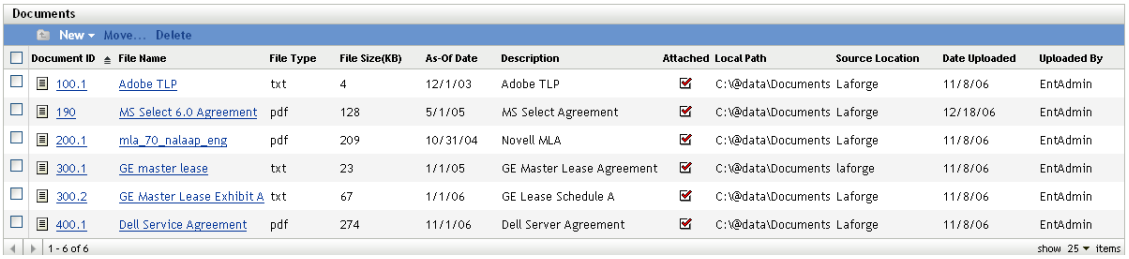
Include Subfolders: Select this option to search the current folder and its subfolders.

3 Click *Search* to apply the search criteria and filter the list.

27.3 Creating a Documents Folder

You can create folders in the Documents list to better organize your documents. All folders are displayed at the top of the list.

1 In ZENworks Control Center, click *Asset Management* > *Documents*.



2 In the Documents panel, click *New* > *Folder* to display the New Folder dialog box.

3 Fill in the following fields:

Name: Specify a name for the folder. The name must be unique among all other folders and documents at the same level.

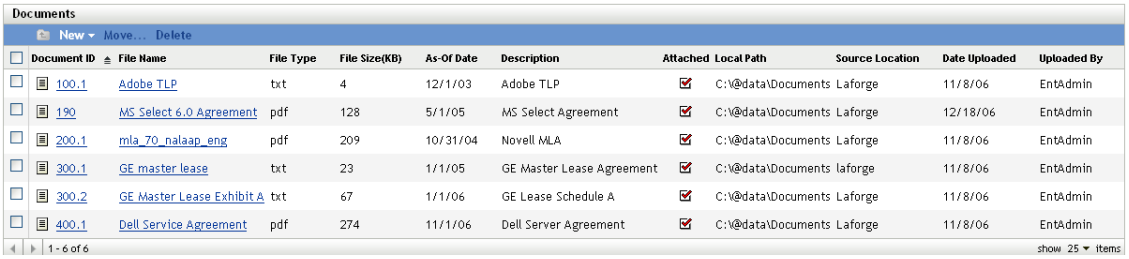
Folder: Browse for and select the folder in which to place the new folder.

Description: Specify any optional information to identify the folder.

4 Click *OK* to create the folder.

27.4 Attaching Documents to Licensed Products, Contracts, and Purchase Summary Records

1 In ZENworks Control Center, click *Asset Management* > *Documents*.



2 Click the document ID.

3 Click the *Relationships* tab.

4 In the Contracts, License Entitlements, or Purchase Summary Records panel, click *Add*.
![Sangeeta: Updated for 11 SP1 FCS, added the following text and 2 graphics]

5 Follow the remaining prompts to add the documents.

VI Reports

Novell ZENworks Asset Management provides a variety of standard reports to help you analyze the data related to your assets. If a standard report does not include the information you need, you can create custom reports.

- Chapter 28, “Standard and Custom Report Descriptions,” on page 173
- Chapter 29, “Configuring Report Rights,” on page 179
- Chapter 30, “Configuring Report Settings,” on page 181
- Chapter 31, “Working with Standard Reports,” on page 183
- Chapter 32, “Working with Custom Reports,” on page 187
- Chapter 33, “Working with ZENworks Reporting Reports,” on page 197

28 Standard and Custom Report Descriptions

ZENworks Control Center includes a variety of standard (predefined) and custom reports to help you analyze the Asset Management data in your Management Zone. The following sections describe the available reports.

- Section 28.1, “License Management Reports,” on page 173
- Section 28.2, “Software Usage Reports,” on page 174
- Section 28.3, “Contract Management Reports,” on page 176

If you have installed the ZENworks Reporting Server, you have access to additional Asset Management reports. See Chapter 33, “Working with ZENworks Reporting Reports,” on page 197.

28.1 License Management Reports

License Management reports help you analyze your license compliance and license allocation data.

- Section 28.1.1, “Standard Reports,” on page 173
- Section 28.1.2, “Sample Custom Reports,” on page 174

28.1.1 Standard Reports

Folder	Report	Description
Software Compliance	Compliance Report	Shows the compliance status for all licensed products. Includes general details such as the number of unreconciled catalog and discovered products. For each licensed product, includes details such as license quantity, installation quantity, active usage quantity, and unused installations.
Software Compliance	Status Summary	Summarizes the total number of licensed products, purchase records, catalog products, and discovered products.
Unreconciled Products	Catalog Products	Shows the catalog products that are not associated with licensed products.
Unreconciled Products	Discovered Products	Shows the discovered products that are not associated with licensed products.
Purchases	Purchase Summary	Shows purchases by product with basic information such as the number of purchases and average purchase price.

Folder	Report	Description
Purchases	Purchase Details	Shows purchases by purchase order/invoice with details such as reseller, product, version, number of purchases, and various purchase prices (Unit MSRP, Unit Price, and Extended Price).
Suites	Suites/Components	Shows discovered suites and their component products. Includes installation quantities associated with the suite and with individual component products.
Suites	Standalone Components	Shows suite components that are installed without the suite. Includes installation quantities and the licensed products with which the standalone components are associated.
Other Reports	Inventory Comparison	Shows all Inventory products (those products discovered by Inventory scans) with the discovered products to which they are mapped. Includes details such as installation quantity, the number of standalone installations and suite component installations, and whether or not the Inventory product is excluded from license compliance.
Other Reports	Software Standards	Shows all discovered products and their assigned standards category.

28.1.2 Sample Custom Reports

Folder	Report	Description
Software Compliance	Excluded Catalog Products	Shows the catalog products that are excluded from license compliance.
Software Compliance	Excluded Discovered Products	Shows the catalog products that are excluded from license compliance.
Software Compliance	Non-Compliant License Records	Shows the licensed products whose compliance is Unknown or Under (too few licenses).
Software Compliance	Unreconciled Discovered Products	Shows the discovered products that are not associated with licensed products and that are not excluded from license compliance.

28.2 Software Usage Reports

Software Usage reports help you analyze the usage of local applications, served applications, and Web applications on devices in your ZENworks Management Zone.

- Section 28.2.1, “Standard Reports,” on page 175
- Section 28.2.2, “Sample Custom Reports,” on page 176

28.2.1 Standard Reports

Folder	Report	Description
Application Usage	Total Application Usage by Product	Shows the total local and served application usage grouped by product.
Application Usage	Total Application Usage by User	Shows the total local and served application usage grouped by user.
Application Usage	Total Application Usage by Device	Shows the total local and served application usage grouped by device.
Application Usage	Local Application Usage by User	Shows the local application usage grouped by user.
Application Usage	Local Application Usage by Device	Shows the local and application usage grouped by device.
Application Usage	Served Application Usage by Product	Shows served application usage grouped by product.
Application Usage	Served Application Usage by Server	Shows served application usage grouped by server.
Application Usage	Served Application Usage by User	Shows served application usage grouped by user.
Application Usage	Served Application Usage by Device	Shows served application usage grouped by device.
Application Usage	Usage Collection History	Shows a history of data collection.
Web Application Usage	Web Application Usage by Application	Shows Web application usage grouped by application.
Web Application Usage	Web Application Usage by User	Shows Web application usage grouped by user.
Web Application Usage	Web Application Usage by Device	Shows Web application usage grouped by device.
Software File Usage	Software File Usage by Category	Software files represent products not recognized by the ZENworks Knowledgebase and therefore not mapped to discovered products. Shows a count of software files grouped by category (*All, Other, Ancillary*), with links to lists of the files.
Software File Usage	Software File Usage by Manufacture	Shows a count of software files grouped by manufacturer, with links to lists of the files.
Software File Usage	Software File Usage by Device	Shows a count of software files grouped by device, with links to lists of the files.
Network Software Usage	Network Software Usage by Product	Shows network software usage grouped by product.
Network Software Usage	Network Software Usage by Server	Shows network software usage grouped by server.

Folder	Report	Description
Network Software Usage	Network Software Usage by User	Shows network software usage grouped by user.
Network Software Usage	Network Software Usage by Device	Usage reports focusing on software launched from a network drive.
All Usage	All Usage by User	Shows all usage grouped by user.
All Usage	All Usage by Device	Shows all usage grouped by device.

NOTE: The total active usage of an application displayed in the software usage report is the accumulated value of active usage of that application. This value should be more than or equal to one hour to be reported in the software usage report. If the value is less than one hour, then it is reported as zero.

28.2.2 Sample Custom Reports

Folder	Report	Description
Software Application Usage	Software Applications Not Used in 90 Days	Shows the applications that haven't been used in the previous 90 days.
Software Application Usage	Software Usage on Virtual Machines	Shows software usage on virtual machines.
Software Application Usage	Workstations with Suspicious Software Used Within 7 Days	Shows the workstations with suspicious software (malware) that has been used in the previous 7 days.

28.3 Contract Management Reports

Contract Management reports help you analyze your contract data from perspectives such as key financial information, service level agreements, and renewal dates.

- Section 28.3.1, "Standard Reports," on page 176
- Section 28.3.2, "Sample Custom Reports," on page 177

28.3.1 Standard Reports

Folder	Report	Description
Contract Management Reports	General Contracts	Shows a list of contracts with general contract information such as status (active or expired), contract period, total cost, and vendor.
Contract Management Reports	Date Details	Shows a list of contracts with date information such as the contract start and end dates, the time remaining, and whether or not the contract has a renewal option.

Folder	Report	Description
Contract Management Reports	Vendor Details	Shows a list of contracts with vendor information such as name, account number, and contact.
Contract Management Reports	Financial Details	Shows a list of contracts with financial information such as total overall cost and total cost per demographic (department, site, and cost center). Also shows annual costs.
Contract Management Reports	SLA Details	Shows a list of contracts with service level agreement information such as agreement period and metrics.
Contract Management Reports	Lease Details	Shows a list of contracts with key lease information such as order date, insurance provisions, and end-of-lease provisions.
Contract Management Reports	Document Details	Shows a list of contracts with their associated documents.
Contract Management Reports	Renewal Details	Shows the renewal history for all contracts.
Contract Management Reports	Association Details	Shows a list of contracts with their associated devices, users, cost centers, departments, sites, and license entitlements.
Contract Management Reports	Parent/Child Details	Shows a hierarchical list of contracts and indicates parent/child relationships.

28.3.2 Sample Custom Reports

Folder	Report	Description
Contract Management	Active Contracts with No Associated Assets	Shows active contracts that have no associated assets; that is, no workstation or network devices.
Contract Management	Active Software Maintenance Contracts	Shows the active contracts whose type is software maintenance.
Contract Management	Contracts with Evergreen Provision	Shows all active contracts with an Evergreen provision (no contract end date).
Contract Management	Contracts with No Attached Documents	Shows all contracts with no attached documents.
Contract Management	Contracts Ending within 90 Days (No Renewal Option)	Shows all non-renewable contracts with end dates within 90 days after the run date.
Contract Management	Contracts Ending within 90 Days (Renewal Option)	Shows all renewable contracts with end dates within 90 days after the run date.
Contract Management	Contracts Renewed in Last 90 Days	Shows contracts that have been renewed in the last 90 days.
Contract Management	Expired Contracts	Shows all expired contracts.

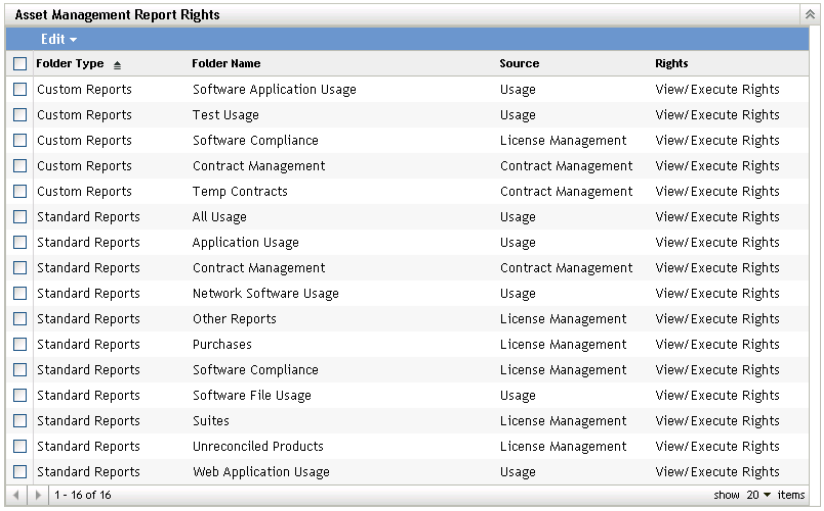
Folder	Report	Description
Contract Management	Lease Schedules Ending within 60 Days	Shows contracts with a lease schedule and a current end date within 60 days of the report run date.
Contract Management	Pending Contracts	Shows all the pending contracts.

29 Configuring Report Rights

ZENworks Asset Management lets you manage administrator rights to each report folder. The rights associated with each folder govern all the reports within that folder. For example, if you have full rights to a folder, you can edit reports within the folder; but with view/execute rights, you can only see the folder's reports and run them.

To configure the Asset Management report rights:

1. In ZENworks Control Center, click *Configuration*.
2. In the Administrators panel, click an administrator.
3. In the Administrator Tasks panel (located in the left navigation panel), click *Asset Management Report Rights*.



4. Select the folders you want to change the rights to.
5. Click *Edit*, then click one of the following:
   - *Remove All Rights*: Removes all rights to the folder, so the administrator cannot see it.
   - *Assign View/Execute Rights*: Allows the administrator to view and execute a report in the specified folder, but not to edit, move, or delete a report in the folder.
   - *Assign Full Rights*: Gives the administrator full rights to create, edit, move, and delete reports. For standard reports, this setting is the same as *View/Execute*, because you cannot alter a standard report.

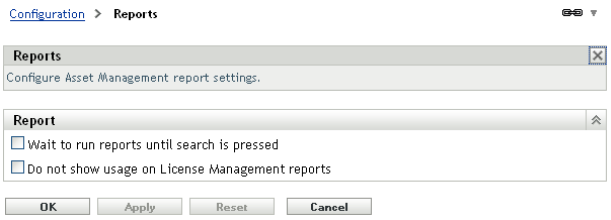
   The change is reflected in the *Rights* column.

30 Configuring Report Settings

There are two ZENworks Management Zone settings related to Asset Management reports. One setting determines how a report is initiated and the other setting determines whether or not software usage is displayed in all reports.

To configure the settings:

1. In ZENworks Control Center, click *Configuration*.
2. In the Management Zone Settings panel, click *Asset Management*, then click *Reports*.



3. Configure the following options:

   Wait to run reports until search is pressed: By default, a report runs when you click it. Select this option to display the search criteria before running the report; the report runs only after you click the *Search* button.

   Do not show usage on License Management reports: Many of the License Management (license compliance and license allocation) reports include software usage data. Collecting the software usage data typically increases the time required to generate the report. If you want to decrease the generation time and you don't need the usage data in the reports, select this option.
4. Click *OK* to save the changes.

31 Working with Standard Reports

ZENworks Control Center includes a variety of predefined Asset Management reports. Chapter 28, "Standard and Custom Report Descriptions," on page 173 describes each of the standard reports. The following sections explain how to use the reports.

- Section 31.1, "Running a Report," on page 183
- Section 31.2, "Exporting a Report," on page 184
- Section 31.3, "Viewing a Report as a Graph," on page 184
- Section 31.4, "Changing the Report Period," on page 184
- Section 31.5, "Changing the Filter Criteria," on page 185

31.1 Running a Report

Many of the Asset Management standard reports include usage data associated with the software product. If you are not interested in this data, you can exclude the data to generate the report more quickly. For information, see Section 30, "Configuring Report Settings," on page 181.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. For license compliance and license allocation reports, click the *License Management* tab, then click *License Management Reports*.

   or

   For software usage reports, click the *Software Usage* tab.

   or

   For contract management reports, click the *Contract Management* tab, then click *Contract Management Reports*.
3. In the Standards Reports panel, locate the report you want to run.

   In some cases, you might need to open a folder to see the report you want. Within a folder, reports are listed by name and description. For a list of reports and descriptions, see Chapter 28, "Standard and Custom Report Descriptions," on page 173.
4. If you are generating a software usage report, you can limit the scope of the report data by selecting one of the following Grouping Criteria:
   - **Zone:** Displays data from the entire Management Zone.
   - **Folder:** Displays data for devices in a specific folder. Select *Folder*, then click to browse for and select the folder.
   - **Group:** Displays data for devices in a specific group. Select *Group*, then click to browse for and select the group.
   - **Demographic:** Displays data for a specific demographic. Select *Demographic*, then select *Department*, *Site*, or *Cost Center*.
5. Click the report to run it.

Many of the reports contained linked items. You can click a linked item to display more detailed information about the item.

31.2 Exporting a Report

You can export report data to three formats: Excel, CSV, and PDF.

1. Run the report. For instructions, see Section 31.1, "Running a Report," on page 183.
2. Export the report to by clicking one of the three options (*Excel*, *CSV*, or *PDF*) at the bottom of the report.

   If the report includes more items than are listed in the current display (for example, *1 to 100 of 226 product*s), three additional options are added: *Excel (All)*, *CSV (All)*, and *PDF (All)*. The *Excel*, *CSV*, and *PDF* options export only the items in the current display. The *Excel (All)*, *CSV (All)*, and *PDF (All)* options export all items.

31.3 Viewing a Report as a Graph

Many reports can be viewed as a graph. If this feature is available, *Graph* appears at the bottom of the report.

A report is generated as three different graphs: bar graph, pie chart, and line graph. You can save the graphs as a PDF file.

Graphs work best for small data sets; if you include many values, the graphs might become hard to read. Use the filter and grouping criteria to limit the amount of data shown.

1. Run the report. For instructions, see Section 31.1, "Running a Report," on page 183.
2. Click *Graph* at the bottom of the report.

   If the report includes more items than are listed in the current display (for example, *1 to 100 of 226 product*s), a *Graph (All)* option is added The *Graph* options graphs only the items in the current display. The *Graph (All)* option graphs all items.

31.4 Changing the Report Period

For greater flexibility, you can change the time period of some reports. If this feature is available, *Change Time Period* (or *Change Time Period/Filter*) appears at the bottom of the report.

You can select from the following time periods:

- Previous Month
- Previous 3 Months
- Previous 6 Months
- Previous 12 Months
- All History in Database

To change the time period:

1. Run the report. For instructions, see Section 31.1, "Running a Report," on page 183.
2. Click *Change Time Period*.
3. Select an interval in the *New Time Period* field.

4 Click *Apply*.

The report runs again and the new time period is shown at the top left of the report.

31.5 Changing the Filter Criteria

Many reports allow you to change the report filter criteria. In some reports, the filter criteria are displayed in a navigation pane to the left of the report. In other reports, criteria are accessed through a *Change Filter* (or *Change Time Period/Filter*) option at the bottom of the report.

1 Run the report. For instructions, see Section 31.1, "Running a Report," on page 183.

2 If the filter criteria are displayed in the left navigation pane, modify the criteria, then click *Search*.

or

Click *Change Filter* at the bottom of the report, select one of the filters, then click *Apply*.

32 Working with Custom Reports

ZENworks Control Center lets you create and run custom Asset Management reports to analyze data not included in the standard reports. Chapter 28, “Standard and Custom Report Descriptions,” on page 173 includes sample custom reports that demonstrate the different types of reports that you can create.

The following sections explain how to use custom reports:

- Section 32.1, “Creating a Custom Report,” on page 187
- Section 32.2, “Running a Custom Report,” on page 188
- Section 32.3, “Scheduling a Custom Report,” on page 189
- Section 32.4, “Viewing a Scheduled Custom Report,” on page 191
- Section 32.5, “Editing a Custom Report,” on page 191
- Section 32.6, “Creating a Custom Report Folder,” on page 193
- Section 32.7, “Deleting a Custom Report Folder,” on page 193
- Section 32.8, “Moving a Custom Report,” on page 194
- Section 32.9, “Deleting a Custom Report,” on page 194
- Section 32.10, “Importing New Report Definitions,” on page 195

32.1 Creating a Custom Report

1. In ZENworks Control Center, click the *Asset Management* tab.
2. For license compliance and license allocation reports, click the *License Management* tab, then click *License Management Reports*.

   or

   For software usage reports, click the *Software Usage* tab.

   or

   For contract management reports, click the *Contract Management* tab, then click *Contract Management Reports*.
3. In the Custom Reports panel, open the folder where you want to create the report.
4. Click *New* to display the Custom Report Definition - Step 1 of 2 page.
5. Fill in the following fields:

   Name: Specify a name for the report. The name must be unique within the folder where it is being created.

   Type: For License Management and Contract reports, this field is preset. For Software Usage reports, select the type of report you want to create. The type determines which Focus options are displayed.

Focus: Select a focus for the report. The focus determines which fields are available to available to include in the report. For example, if you are creating a License Management type report and you select Purchase Records as the focus, only the fields related to purchase records are available.

6 Click *Continue* to display the Custom Report Definition - Step 2 of 2 page

7 Fill in the following fields:

Name: Displays the name you entered in Step 5. You can change it if necessary.

Folder: Displays the folder you selected in Step 3. You can change it if necessary.

Description: Specify a description for your report. This is optional

Type: Displays the report type you selected in Step 5.

Columns: From the list on the left, select the fields you want to include in your report. Use the arrow icons to move the selected fields to the list on the right. Use Ctrl+click to select more than one field at a time. Use the up and down icons to order the field display.

Criteria: Lets you include or exclude entries based on the value of a field in the database. For example, if you are creating a report with a Purchase Record focus and you don't include any criteria, all purchase records are displayed in the generated report. However, if you select *Purchase Reseller = CheapSoft* as the criteria, only purchase records with CheapSoft as the purchase reseller are displayed.

Select your filter criteria in the *Field*, *Operator*, and *Value* fields. Use the + icons to add filters or click the - icon to delete a filter. Click *OR* or *AND* to toggle back and forth between the two operators.

Summary Criteria: Lets you include or exclude entries based on a calculated value.

Select your summary filter criteria in the *Field*, *Operator*, and *Value* fields. Use the + icons to add filters; click the - icon to delete a filter. Click *OR* or *AND* to toggle back and forth between the two operators

8 Click *Save*.

The report is added to the Custom Reports panel. However, it is not displayed until you refresh the page.

32.2 Running a Custom Report

If a custom reports include usage data associated with software products, and you are not interested in the usage data, you can exclude the data to make the reports generate more quickly. For information, see Chapter 30, "Configuring Report Settings," on page 181.

1 In ZENworks Control Center, click the *Asset Management* tab.

2 For license compliance and license allocation reports, click the *License Management* tab, then click *License Management Reports*.

or

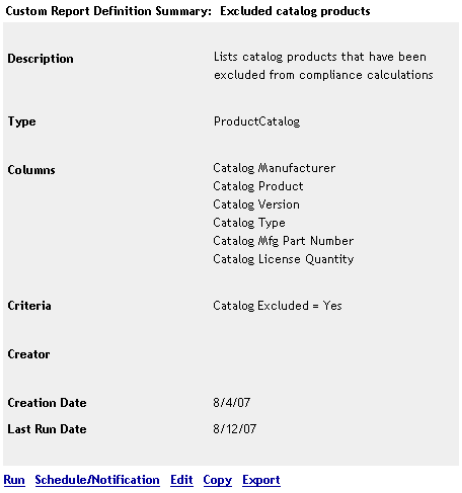
For software usage reports, click the *Software Usage* tab.

or

For contract management reports, click the *Contract Management* tab, then click *Contract Management Reports*.

3 In the Custom Reports panel, open the folder containing the report you want to run.

4 Click the report.



The report definition appears. For information on editing the report definition, see Section 32.5, "Editing a Custom Report," on page 191.

5 Click *Run* at the bottom of the report.

On the report page, click the various links on the report for additional information. You can also export the report to an Excel, CSV, or PDF format by clicking the corresponding link.

32.3 Scheduling a Custom Report

You can schedule a report to run automatically and send out notifications to individuals when it is ready.

You must have already defined an SMTP e-mail server if you want to send e-mail notifications. This is done through the SMTP Settings option (*Configuration* tab > *Management Zone Settings* panel > *Event and Messaging* > *SMTP Settings*).

1 In ZENworks Control Center, click the *Asset Management* tab.

2 For license compliance and license allocation reports, click the *License Management* tab, then click *License Management Reports*.

or

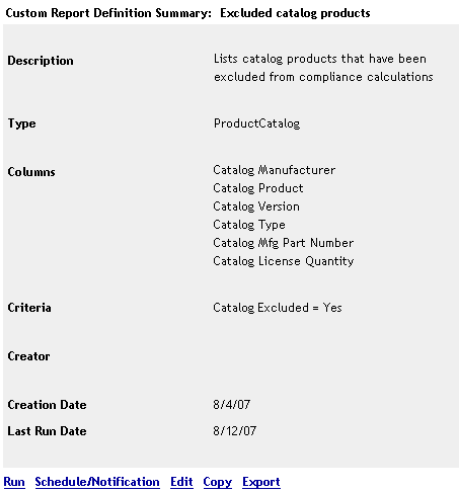
For software usage reports, click the *Software Usage* tab.

or

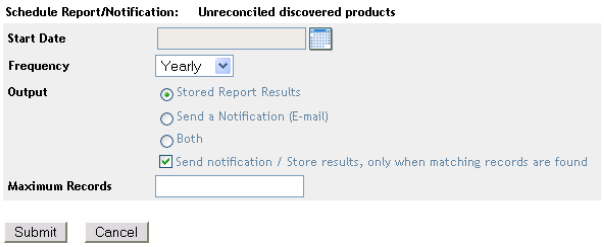
For contract management reports, click the *Contract Management* tab, then click *Contract Management Reports*.

3 In the Custom Reports panel, open the folder containing the report you want to run.

4 Click the report you want to schedule.



5 Click *Schedule/Notification*.



6 Fill in the following fields:

Start Date: Click to specify the first day that you want the report generated.

Frequency: Select how often you want to generate the report: yearly, monthly, weekly, daily, once, or never.

Output: Select what you want to happen when the report is generated. You can simply store the report, send an e-mail notification that the report is ready, or both. You can also choose to store the results or send a notification only when the report includes data.

If you select *Send a Notification (E-mail)* or *Both*, you must configure the e-mail notification:

- *Delivery Format*: Send the report as an Microsoft Excel file or PDF file attached to the e-mail, or include a link to the report stored on your ZENworks server.
- *Sender*: Specify the name to be included in the From field of the e-mail.
- *Recipients*: The Contacts list includes the individuals whose e-mail addresses are listed in the Inventory database. If the list does not include the e-mail addresses you need, you can import the addresses or use the *Additional Recipients* field. For information about importing e-mail addresses, see "Configuring E-mail Addresses" in the *ZENworks 11 Asset Inventory Reference*.

  To add a recipient from the Contacts list, select the recipient, then click to add the recipient to the To list.
- *Additional Recipients*: You must add at least one default recipient. To do so, you can use this field or the *Recipients* field. To use this field, specify at least one address (for example, pjones@novell.com). Separate addresses with commas.

Maximum Records: Specify the maximum number of records to include in the report.

7 Click *Submit*.

The report runs at the scheduled times.

32.4 Viewing a Scheduled Custom Report

Scheduled reports are stored in the ZENworks database. You can view these reports either by title or date. For information about scheduling reports, see Section 32.3, "Scheduling a Custom Report," on page 189.

1 In ZENworks Control Center, click the *Asset Management* tab.

2 For license compliance and license allocation reports, click the *License Management* tab, then click *License Management Reports*.

or

For software usage reports, click the *Software Usage* tab.

or

For contract management reports, click the *Contract Management* tab, then click *Contract Management Reports*.

3 In the Custom Reports panel, click one of the following:

- *Action > View Scheduled Report Results by Date*
- *Action > View Scheduled Report Results by Title*

The Scheduled Reports by Grouping page displays and shows the reports grouped by date or title and a report count.

4 Click a grouping to open the *Scheduled Reports* page, then select a report to view it.

32.5 Editing a Custom Report

1 In ZENworks Control Center, click the *Asset Management* tab.

2 For license compliance and license allocation reports, click the *License Management* tab, then click *License Management Reports*.

or

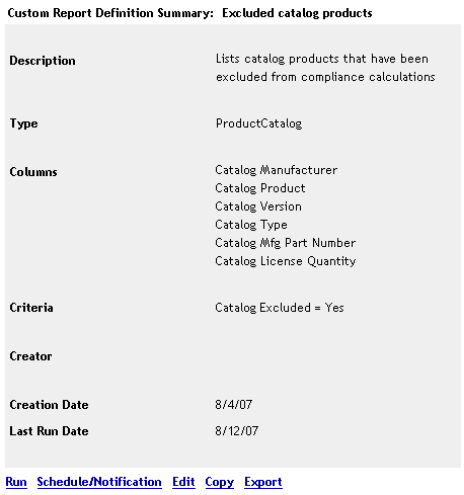
For software usage reports, click the *Software Usage* tab.

or

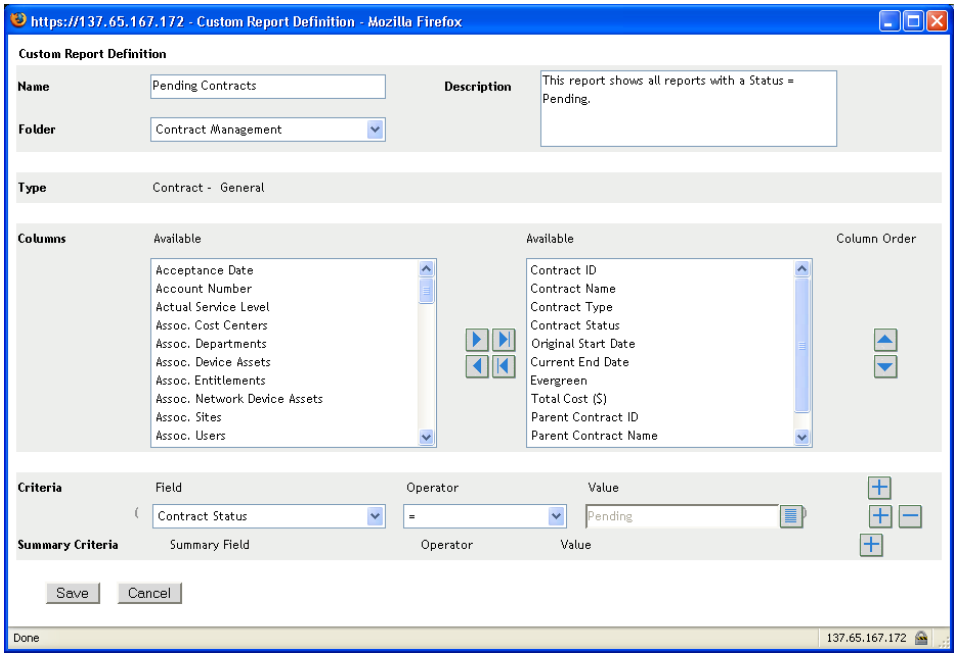
For contract management reports, click the *Contract Management* tab, then click *Contract Management Reports*.

3 In the Custom Reports panel, open the folder containing the report you want to edit.

4 Click the report.



5 Click *Edit* at the bottom of the report.



6 Edit the following fields:

Name: The name of the report. Any name you specify must be unique within the folder where the report resides.

Folder: The folder where you want to save the report.

Description: A description for the report. This field is optional.

Type: The report type.

Columns: From the list on the left, select the fields you want to include in your report. Use the arrow icons to move the selected fields to the list on the right. Use Ctrl+click to select more than one field at a time. Use the up and down icons to order the field display.

Criteria: Lets you include or exclude entries based on the value of a field in the database. For example, if you are creating a report with a Purchase Record focus and you don't include any criteria, all purchase records are displayed in the generated report. However, if you select *Purchase Reseller = CheapSoft* as the criteria, only purchase records with CheapSoft as the purchase reseller are displayed.

Select your filter criteria in the *Field*, *Operator*, and *Value* fields. Use the + icons to add filters or click the - icon to delete a filter. Click *OR* or *AND* to toggle back and forth between the two operators.

Summary Criteria: Lets you include or exclude entries based on a calculated value.

Select your summary filter criteria in the *Field*, *Operator*, and *Value* fields. Use the + icons to add filters; click the - icon to delete a filter. Click *OR* or *AND* to toggle back and forth between the two operators

7 Click *Save*.

32.6 Creating a Custom Report Folder

You can create folders to organize your custom reports.

1 In ZENworks Control Center, click the *Asset Management* tab.

2 For license compliance and license allocation reports, click the *License Management* tab, then click *License Management Reports*.

or

For software usage reports, click the *Software Usage* tab.

or

For contract management reports, click the *Contract Management* tab, then click *Contract Management Reports*.

3 In the Custom Reports panel, click *New* to display the *New Folder* dialog box.

4 In the Name field, specify a name for the folder, then click *OK*.

The name must be unique within the Custom Reports list.

32.7 Deleting a Custom Report Folder

To delete a folder and all the reports in it:

1 In ZENworks Control Center, click the *Asset Management* tab.

2 For license compliance and license allocation reports, click the *License Management* tab, then click *License Management Reports*.

or

For software usage reports, click the *Software Usage* tab.

or

For contract management reports, click the *Contract Management* tab, then click *Contract Management Reports*.

3 In the Custom Reports panel, select the folder you want to delete.

4 Click *Delete*, then click *OK* to confirm the deletion.

32.8 Moving a Custom Report

You can move a custom report from one folder to another. The target folder must be of the same type (License Management, Software Usage, or Contract Management) as the source folder.

1. In ZENworks Control Center, click the *Asset Management* tab.
2. For license compliance and license allocation reports, click the *License Management* tab, then click *License Management Reports*.

   or

   For software usage reports, click the *Software Usage* tab.

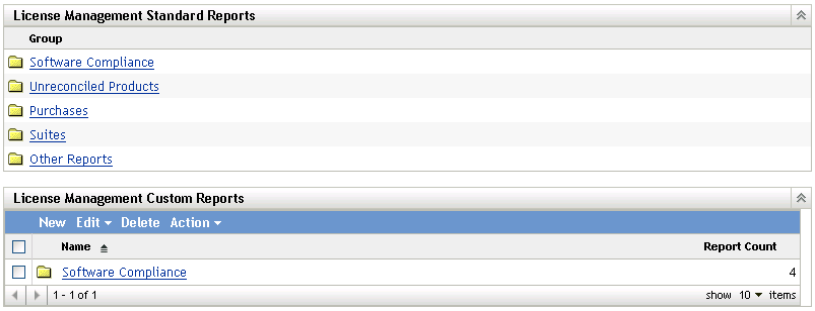
   or

   For contract management reports, click the *Contract Management* tab, then click *Contract Management Reports*.
3. In the Custom Reports panel, select the report you want to move, then click *Edit* > *Move*.
4. In the New Report Location list, select the target folder, then click *OK*.

32.9 Deleting a Custom Report

To delete a custom report:

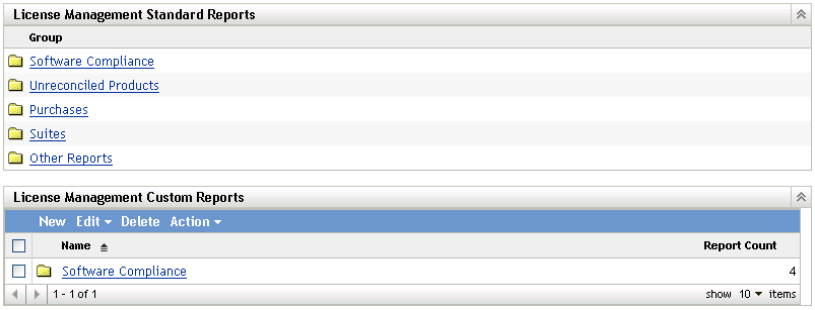
1. In ZENworks Control Center, click the *Asset Management* tab.
2. In the License Management panel, click *License Management Reports*.



3. In the License Management Custom Reports panel, click the folder containing the report you want to delete.
4. Select the report you want to delete.
5. Click *Delete*.

To delete a folder (and all the reports in it):

1. In ZENworks Control Center, click the *Asset Management* tab.
2. In the License Management panel, click *License Management Reports*.



3 In the License Management Custom Reports panel, select the folder you want to delete.

4 Click *Delete*.

32.10 Importing New Report Definitions

If you have defined reports in ZENworks Asset Management 7.5, you can import them into ZENworks Control Center. You can also re-import reports that have been exported by ZENworks Control Center.

To import report definitions:

1 In ZENworks Control Center, click the *Asset Management* tab.

2 For license compliance and license allocation reports, click the *License Management* tab, then click *License Management Reports*.

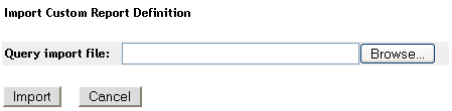
or

For software usage reports, click the *Software Usage* tab.

or

For contract management reports, click the *Contract Management* tab, then click *Contract Management Reports*.

3 In the Custom Reports panel, click *Action* > *Import New Report Definition*.



4 Specify the file in the *Query import file* field, or click *Browse* to search for and select the file.

5 Click *Import*.

33 Working with ZENworks Reporting Reports

In addition to the software usage, license management, and contract management reports that you can create and generate from the *Asset Management* folder in ZENworks Reporting, and also you can create and generate additional reports.

The ZENworks Reporting is a powerful, flexible, and customizable reporting tool that is installed and configured separately from the ZENworks system (see the *ZENworks 11 Reporting Server Installation Guide*).

You can use the ZENworks Reporting to view additional predefined Asset Management reports and create Ad Hoc reports (custom reports). The following sections describe the predefined reports and how to view them.

- Section 33.1, "Viewing a Predefined Report," on page 197
- Section 33.2, "Predefined Reports," on page 197

For information about creating custom reports, see the *ZENworks 11 System Reporting Reference*.

33.1 Viewing a Predefined Report

ZENworks Reporting must be installed and configured to use the predefined reports. For information, see the *ZENworks 11 Reporting Server Installation Guide*.

1. Log in to ZENworks Reporting.
2. Navigate to the *View* > Repository > Folders > Organization > Reports > ZENworks > Predefined Reports > *Asset Management* > *License Management* folder.

   The Asset Management reports are organized in four subfolders: *License Allocation*, *Purchases*, *Software Compliance*, and *Suites*. For a brief description of each report, see Section 33.2, "Predefined Reports," on page 197.
3. Open the folder that contains a report to view.
4. Double-click the report.

33.2 Predefined Reports

The predefined Asset Management reports are organized into four categories:

- Section 33.2.1, "License Allocation Reports," on page 198
- Section 33.2.2, "Purchases Reports," on page 198
- Section 33.2.3, "Software Compliance Reports," on page 199

- Section 33.2.4, “Suites Reports,” on page 199
- Section 33.2.5, “Licensed Products And Entitlements Report,” on page 199

33.2.1 License Allocation Reports

Report Title	Description
Allocations vs. Installations	For each licensed product, shows the variance between allocated licenses and the total number of installations. For each licensed product, this report lists the total number of licenses, installed, allocated, over allocated, or under allocated.
Current Allocations	For each licensed product, this report lists the current number of licenses allocated and unallocated quantity.
Demographic Over-Allocation	Lists all licensed products whose number of demographically allocated licenses is more than the number of installations associated with the demographic.
Demographic Under-Allocation	Lists all licensed products whose number of demographically allocated licenses is less than the number of installations associated with the demographic.
Device Over-Allocation	Lists all licensed products whose number of device-allocated licenses is less than the number of installations associated with devices.
Duplicate Allocations	Lists all licensed products with device allocations that duplicate demographic allocations.
Installations with no Allocations	Lists all licensed products with installed licenses that are not covered by demographic or device allocations.
Licensed Products Allocations	Lists the demographic allocations and device allocations of the licensed product. Data can be filtered based on the department and the site.

33.2.2 Purchases Reports

Report Title	Description
Purchase Record Detail	Lists all Purchase Order details such as, PO number, Invoice number, Order date, Reseller, manufacturer, quantity along with unit price and MSRP.
Purchase Record Summary	Compiles the purchase records by catalog product. For each catalog product, lists the product type, purchase quantity, average unit price, and total price.

33.2.3 Software Compliance Reports

Report Title	Description
Compliance Status	Provides the compliance status of the selected licensed product. It lists the license consumption details such as, installed quantity, calculated license quantity, consumed quantity and net consumption. It also lists details about any un-resolved installations.
Discovered Product Summary	Provides details of the discovered product that is reconciled with the licensed product.
Software Compliance	Provides the compliance data of the entire list of licensed products present. ◆ **Compliance Report:** Shows the compliance status for all licensed products. Includes general details such as the number of unreconciled catalog and discovered products. For each licensed product, includes details such as license quantity, installation quantity, active usage quantity, and unused installations. ◆ **Status Summary:** Summarizes the total number of licensed products, purchase records, catalog products, and discovered products.

33.2.4 Suites Reports

Report Title	Description
Discovered Standalone Components	Lists the individual components of a suite that have been discovered through an inventory scan of devices. For each component, lists the number of installations and how many are being used.

33.2.5 Licensed Products And Entitlements Report

Report Title	Description
Licensed Products And Entitlements	Lists the licensed products and its associated entitlement details.

A Documentation Updates

This section contains information on documentation content changes that were made in this *ZENworks Asset Management Reference* for Novell ZENworks 11. The information can help you to keep current on updates to the documentation.

The documentation for this product is provided on the Web in two formats: HTML and PDF. The HTML and PDF documentation are both kept up-to-date with the changes listed in this section.

If you need to know whether a copy of the PDF documentation that you are using is the most recent, the PDF document includes a publication date on the title page.

The following updates were made to the document:

- Section A.1, “October 2013: 11 SP3 (11.2.4),” on page 201

A.1 October 2013: 11 SP3 (11.2.4)

Updates were made to the following sections.

Location	Change
Chapter 28, “Standard and Custom Report Descriptions,” on page 173.	Added a note at the end of the table in the following section: Section 28.1.1, “Standard Reports,” on page 173.