AUTHORIZED DOCUMENTATION

Getting Started Guide

Novell® PlateSpin® Recon

3.7

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www.novell.com

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Contents

About This Guide

This guide provides information about PlateSpin® Recon.

Audience

This text is intended for IT staff, such as data center administrators and operators, who use PlateSpin Recon in the management and planning of the data center.

Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please take a moment to provide your comments at the Novell Documentation Web site (http://www.novell.com/documentation/feedback).

Additional Documentation

In addition to this guide, PlateSpin Recon comes with the following documentation:

- *PlateSpin Recon User Guide*
- An online version of the *PlateSpin Recon User Guide* along with the *Licensing* section of the *Getting Started Guide,* integrated with the product
- *Release Notes*

Documentation Updates

For the most current version of the PlateSpin Recon 3.7 documentation, see the Novell PlateSpin Recon 3.7 documentation Web site (http://www.novell.com/documentation/ps_recon37/).

Technical Support

Contact Technical Support by:

- Telephone (North America): +1 800 858 4000. This is a toll-free number.

- Telephone (global): +1 416 203 4799. This is not a toll-free number.
- E-mail: support@platespin.com

You can also visit the PlateSpin Technical Support Web site (http://www.platespin.com/support/) or Novell Customer Center Web site (http://www.novell.com/center/eservice).

User Forum

You can also visit the user forum (http://forums.novell.com/novell-product-support-forums/platespin/).

Documentation Conventions

In PlateSpin documentation, a greater-than symbol (>) is used to separate actions within a step and items in a cross-reference path.

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Installing PlateSpin Recon

1

This section details the system requirements and installation steps for Novell® PlateSpin® Recon.

1.1 System Requirements

1.1.1 PlateSpin Recon Server Hosts

PlateSpin Recon Server hosts must meet the following system requirements:

Table 1-1 *System Requirements for PlateSpin Recon Server Hosts*

	Basic	**Large-Scale**
	◆ Up to 250 monitored workloads ◆ Up to 5000 inventoried workloads	◆ 250 to 2000 monitored workloads ◆ Up to 10,000 inventoried workloads
OS	Any of the following: ◆ Microsoft* Windows* Server* 2008 (SP0) ◆ Microsoft Windows Server 2003 (SP0, SP1, SP2) — English, French, German, and Japanese PlateSpin Recon server is not supported on WOW64 (Windows-on-Windows 64-bit) or any other 64-bit operating system. **IMPORTANT:** User Access Control (UAC) should be turned off on Windows Server 2008. For more information, see Appendix D, “Turning Off UAC on Windows Server 2008,” on page 37.	
Processor	◆ Pentium* 4, 2.8 GHz with hyperthreading or better	◆ Xeon*, 2.8 or 3.2 GHz dual core or multi-processor recommended
Virtual Machine	2 Virtual CPU	2 Virtual CPUs

	Basic	Large-Scale
Memory	1 GB (2 GB recommended)	2 GB (4 GB recommended)
Disk Space	20 GB free	100 GB free
Database Engine	Any of the following: ◆ PostgreSQL* 8.3.4 (included in the PlateSpin Recon distribution) ◆ PostgreSQL 8.2.*x* and 8.3.*x* ◆ Microsoft SQL Server* 2000 (SP3A+) ◆ Microsoft SQL Server 2005	Microsoft SQL Server (recommended)
Software	◆ Microsoft IIS 5.0/6.0 (with ASP.NET) ◆ Microsoft .NET Framework 3.5 ◆ Microsoft Data Access Components (MDAC) 2.6 **IMPORTANT:** Make sure to Microsoft IIS is installed before installing Microsoft .NET Framework 3.5.	

NOTE: Disk space Requirements depend on the number of monitored workloads and the amount of historical summary and raw utilization data kept in the database. When using a remote SQL Server database, ensure that the database host has 2 GB of allocated space. Disk space requirements are based on 30 days of monitoring. At least one CPU core for every 750 monitored servers is recommended. For detailed information, see Section 1.1.4, "Database Growth Projections," on page 11.

1.1.2 PlateSpin Recon Client Hosts

PlateSpin Recon Client hosts must meet the following system requirements:

Table 1-2 *System Requirements for PlateSpin Recon Client Hosts*

Component	Requirements
OS	Any of the following (either Physical or Virtual): ◆ Microsoft Windows Server 2008 (SP0) ◆ Microsoft Windows Server 2003 (SP0, SP1, SP2) — English, French, German ◆ Microsoft Windows Vista (SP0, SP1) **NOTE:** You must be logged in using the built-in Administrator account to run the PlateSpin Recon Client under Microsoft Vista/2008. Using *Run as Administrator* or another administrative account does not work. ◆ Microsoft Windows XP (SP2) — English only PlateSpin Recon client is not supported on WOW64 (Windows-on-Windows 64-bit) or any other 64-bit operating system.

Component	Requirements
Hardware	◆ **CPU** - Minimum: 1.0 GHz; Recommended: Pentium 4, 2.0 GHz ◆ **Memory** - Minimum: 512 MB; Recommended: 1 GB ◆ **Disk Space** - 80 MB free
Software	◆ Microsoft .NET Framework 3.5

1.1.3 PlateSpin Recon in a Virtual Machine

You can install PlateSpin Recon Server and PlateSpin Recon Client software in a virtual machine (VMware* ESX 3.*x* platform only). For detailed information about the Server requirements, see Section 1.1.1, "PlateSpin Recon Server Hosts," on page 9, and for information about the client requirements, see Section 1.1.2, "PlateSpin Recon Client Hosts," on page 10.

Installing PlateSpin Recon Server in a VM restricts the monitoring and inventorying capabilities of the software to:

- 5000 inventoried workloads
- 1000 monitored workloads

1.1.4 Database Growth Projections

Table 1-3 *Database Growth Projections*

Machines	Time	Application DB	Performance DB
100	1 month	35 MB	1.6 GB
100	6 month	35 MB	10.5 GB
500	1 month	90 MB	10 GB
500	6 month	90 MB	20 GB
1500	1 month	220 MB	18 GB
1500	6 month	220 MB	90 GB
2000	1 month	804 MB	60 GB
2000	6 month	804 MB	71 GB
5000	1 month	1409 MB	150 GB
5000	6 month	1409 MB	177 GB
10000	1 month	1628 MB	299 GB
10000	6 month	1628 MB	354 GB

NOTE: Application database figures are based on average reporting usage. The DB size figures should be doubled when using PostgreSQL.

1.2 Installing PlateSpin Recon

1.2.1 Prerequisites

Before installing PlateSpin Recon, ensure that the following prerequisites are met:

- ❑ Ensure that Microsoft .NET Framework 3.5 is installed on the system where you want to install PlateSpin Recon Server.
- ❑ Ensure to install PlateSpin Recon by using an account with administrative privileges.
- ❑ If you want to install the PlateSpin Recon server or client on Windows Server 2003, ensure that the system has the following:
  - The Application Server role is installed (*Manage Your Server* or *Control Panel > Add or Remove Programs > Add/Remove Windows Components*). When choosing components, ensure that *ASP.NET* is selected.
  - ASP.NET 1.*x* and ASP.NET 2.*x* are both set to *Allowed* (*IIS Manager > [local computer] > Web Service Extensions*).
- ❑ If you want to install the PlateSpin Recon server or client on Windows Server 2008, ensure that the system has the Web Server (IIS) role installed.
  1. From the desktop *Start* menu, click *Settings > Control Panel*.
  2. Double-click *Administrative Tools > Server Manager*.
  3. In the left navigation pane, expand *Roles*.
  4. In *Roles Summary*, click *Add Role.*
  5. On the Select Role Services page, add the following components:
     - *Security > Windows Authentication*
     - *Management Tools > IIS 6 Management Compatibility* (including all subcomponents)
- ❑ Make sure that the following database requirements are met:
  - A local or remote instance of either Microsoft SQL Server 2000/2005 or PostgreSQL is available.

    If neither a local/remote Microsoft SQL Server nor a PostgreSQL Server is installed, and if you want to use a PostgreSQL database, you can install it during the PlateSpin Recon installation. You can install the database on the same server as PlateSpin Recon or on any other system in the network.
  - Database access requires *public*, *datareader*, or *datawriter* roles. A user performing installation must be a member of the *sysadmin* fixed server role.
- ❑ Make sure that the PlateSpin Recon Server and the PlateSpin Recon Client are in the same domain.

1.2.2 Downloading and Starting the PlateSpin Recon Installation Program

1. Download `PlateSpin Recon.exe` from the PlateSpin Web site.
2. Double-click `PlateSpin Recon.exe`.

   The PlateSpin Recon InstallShield Wizard is displayed.
3. Type a location to save the PlateSpin Recon files or click the *Change* button to browse for a location.

   By default, the PlateSpin Recon files are extracted to a temporary directory.
4. Click *Install*.

   PlateSpin Recon files are extracted and saved to the specified location.

   The PlateSpin Recon Installation Launcher is displayed.
5. (Conditional) If you do not have a local nor a remote Microsoft SQL Server or a PostgreSQL Server installed, and if you want to use a PostgreSQL database, continue with Section 1.2.3, "Installing the Embedded PostgreSQL Database," on page 13.

For information on how to configure PostgreSQL to allow remote connections, see Knowledge Base article Q20889 (http://support.platespin.com/kb2/article.aspx?id=20889).

1.2.3 Installing the Embedded PostgreSQL Database

If you do not have a local or a remote Microsoft SQL Server or a PostgreSQL Server installed, and if you want to use a PostgreSQL database, you can install it during the PlateSpin Recon installation.

1. In the PlateSpin Recon Installation Launcher, click *Install Embedded PostgreSQL 8.3*.

   This starts the PostgreSQL Server unattended (silent) installation.
2. After the installation has completed, continue with Section 1.2.4, "Installing the PlateSpin Recon Server," on page 13.

1.2.4 Installing the PlateSpin Recon Server

1. In the PlateSpin Recon Installation Launcher, click *Install Server* and follow the instructions in the PlateSpin Recon Server - InstallShield Wizard.
2. Click *Next*.
3. (Conditional) If you are upgrading a previously installed instance of PlateSpin Recon, the Upgrade confirmation dialog box is displayed. Click *Yes* to continue.
4. If the terms of the license agreement are acceptable, select the *I accept the terms in the license agreement* option in the PlateSpin Recon Server - InstallShield Wizard and click *Next*.
5. Select a database engine to use with PlateSpin Recon:
   - *Microsoft SQL Server*—Select a local instance or connect to a remote server. When prompted, select a database server and provide an authentication Login ID and password.

NOTE: For Windows Server 2003, the option to connect using Windows authentication credentials is available.

- *PostgreSQL*—Select a local instance or connect to a remote server. When prompted, provide information to connect to a PostgreSQL database. If the embedded PostgreSQL database is installed, select *Use local instance installed with PlateSpin Recon*.

6. Click *Next*.
7. (Conditional) If you have PostgreSQL database installed, you are prompted to select a tablespace to associate with the database.
8. Click *OK*.
9. Click *Next* to install to the default destination directory or click *Change* to specify another location.
10. Click *Install* to begin the installation.
11. When the installation is complete, click *Finish*.

1.2.5 Installing the PlateSpin Recon Client

1. (Conditional) If the PlateSpin Recon Installation Launcher is not displayed, double-click the `PlateSpin Recon.exe` file that was downloaded from the PlateSpin Web site.
2. Click *Install Client* in the PlateSpin Recon Installation Launcher.

   The PlateSpin Recon Client - InstallShield Wizard is displayed.
3. Click *Next*.
4. (Conditional) If you are upgrading a previously installed instance of PlateSpin Recon, the Upgrade confirmation dialog box is displayed. Click *Yes* to continue.
5. If the terms of the license agreement are acceptable, select the *I accept the terms in the license agreement* option in the PlateSpin Recon Client - InstallShield Wizard and click *Next*.
6. Change the default destination directory if desired and enter the *IP* address and the *Port* that is used by IIS on the server to connect to the PlateSpin Recon Server.
7. Click *Next*.
8. (Conditional) If you are installing the PlateSpin Recon Client on a remote server, replace `localhost` with the hostname or IP address of the PlateSpin Recon Server. The values can be changed from within the client later by selecting *Tools* > *Options* and editing the values under the *Connection* node on the *Client* tab.
9. Click *Install*.
10. When the installation is complete, click *Finish*.

    By default, *Launch PlateSpin Recon Client* is selected. The message `The installation is completed successfully` is displayed in the PlateSpin Recon Installation Launcher.
11. Click *Close* to exit the Installation Launcher.

1.3 Checking for Updates

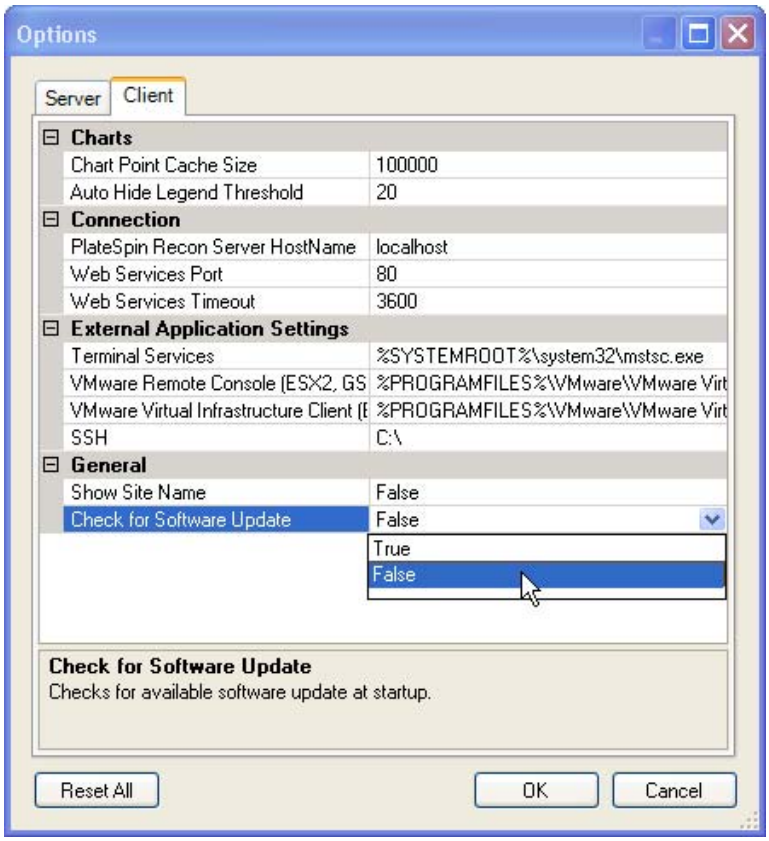
Following the initial startup, PlateSpin Recon verifies whether an update is available. Version update status is displayed in the Update Availability dialog box. To avoid checking for updates every time PlateSpin Recon opens, select the *Do not check for update at startup* option.

NOTE: To manually check for version updates, click the *Help* menu in the PlateSpin Recon Client, then click *Check for Update*.

To reset the software update check:

1. On the PlateSpin Recon Client *Tools* menu, click *Options*.

   The Options dialog box is displayed.
2. Click the *Client* tab.
3. Under the *General* node, set the *Check for Software Update* value to *True*.



4. Click *OK*.

Upgrading PlateSpin Recon 2

This section includes information about the new enhancements in Novell® PlateSpin® Recon 3.7 and information about how to upgrade to PlateSpin Recon 3.7.

2.1 What's New

PlateSpin Recon 3.7 includes the following new features and enhancements:

- Identifying the disk type that is attached to the workload based on the storage type such as iSCSI, Local, or SAN.
- Support for inventory and monitoring on IBM* AIX* 5.2, 5.3, and 6.1.
- Collecting data for new disk utilization counters, such as:

  VC_DiskPercentIdleTime
  VC_DiskTotalSpaceGB
  VC_DiskUsedSpaceGB
  VC_DiskFreeSpaceGB
  VC_DiskPercentUsedSpace
  VC_DiskPercentFreeSpace
  VC_DiskPartitionedSpaceGB
  VC_DiskUnpartitionedSpaceGB
  VC_DiskPercentPartitionedSpace
  VC_DiskPercentUnpartitionedSpace
  PhysicalDisk_CurrentDiskQueueLength
  PhysicalDisk_PercentIdleTime
  PhysicalDisk_TotalSpaceGB
  PhysicalDisk_UsedSpaceGB
  PhysicalDisk_FreeSpaceGB
  PhysicalDisk_PercentUsedSpace
  PhysicalDisk_PercentFreeSpace
  PhysicalDisk_PartitionedSpaceGB
  PhysicalDisk_UnpartitionedSpaceGB
  PhysicalDisk_PercentPartitionedSpace
  PhysicalDisk_PercentUnpartitionedSpace

  For detailed information about the counters collected by PlateSpin Recon for the supported platforms, see "Platform Counters" in the *PlateSpin Recon User Guide*.
- Collecting data for new volume utilization counters, such as:

  VC_LogicalDiskUsedMegabytes
  VC_LogicalDiskFreeMegabytes

VC_LogicalDiskPercentUsedSpace
VC_LogicalDiskPercentFreeSpace
LogicalDisk_UsedMegabytes
LogicalDisk_FreeMegabytes
LogicalDisk_PercentUsedSpace
LogicalDisk_PercentFreeSpace

For detailed information about the counters collected by PlateSpin Recon for the supported platforms, see "Platform Counters" in the *PlateSpin Recon User Guide*.

- Two new Inventory reports related to core count are available:
  - **Core Count Report:** Used to calculate all physical cores and virtual cores (vCPU).
  - **Physical Core Count Report:** Used to calculate physical cores only.

2.2 Upgrading to PlateSpin Recon 3.7

The PlateSpin Recon 3.7 installer can upgrade PlateSpin Recon 3.5, 3.6, or 3.6.1. PlateSpin Recon versions prior to 3.5 need to be uninstalled before installing 3.7.

Perform the tasks in the following sections to upgrade to PlateSpin Recon 3.7:

- Section 2.2.1, "Pre-Upgrade Tasks," on page 18
- Section 2.2.2, "Upgrading to PlateSpin Recon 3.7," on page 20
- Section 2.2.3, "Post-Upgrade Task," on page 20

2.2.1 Pre-Upgrade Tasks

Before upgrading to PlateSpin Recon 3.7, perform the following tasks:

- "Generating Reports and Performing Consolidation Planning on the Existing Data" on page 18
- "Backing Up the PlateSpin Recon Databases" on page 19

Generating Reports and Performing Consolidation Planning on the Existing Data

If you have lot of inventory and monitoring data collected by your current version of PlateSpin Recon, it is highly recommended that you generate reports and perform consolidation planning based on the existing data because the disk space utilization mechanism has been changed in PlateSpin Recon 3.7. In the earlier versions of Recon, the disk space utilization data was retrieved from Inventory. In PlateSpin Recon 3.7, the monitoring data is leveraged for disk space utilization. After upgrading to PlateSpin Recon 3.7, you cannot see the old disk space utilization data in the disk-related charts.

The legend representations for disks for Solaris*, ESX, Windows and Citrix* XenServer* have been changed in PlateSpin Recon 3.7 charts. After upgrading to PlateSpin Recon 3.7, the charts display the new legends for disk-related data. However, the old legends are retained to view the data collected by PlateSpin Recon 3.6.

Backing Up the PlateSpin Recon Databases

PlateSpin Recon stores all inventory and monitoring data in a MS SQL 2000, MS SQL 2005, or PostgreSQL Server database. Prior to performing an upgrade, it is highly recommended that you back up the PlateSpin Recon databases.

1 Shut down all clients.

   If you want to retain the previous backups, copy them to an alternate location prior to performing this backup.

2 Stop the PlateSpin Recon services.

   For more information on how to stop the PlateSpin Recon services, see Section B.2, "Manually Stopping the PlateSpin Recon Services," on page 33.

3 Take a reliable backup of the PlateSpin Recon databases.

   - "Backing Up the MS SQL 2000 Database" on page 19
   - "Backing Up the MS SQL 2005 Database" on page 19
   - "Backing Up the PostgreSQL Database" on page 19

Backing Up the MS SQL 2000 Database

1 Launch the Enterprise manager and connect to the server.

2 Right-click the database you want to back up.

3 Select *All Tasks* > *Backup* from the pop-up menu.

4 Select *Database Complete Backup*.

5 Select *Disk destination* and specify the new filename and the location for the backup.

6 (Conditional) If you are upgrading a previously installed instance of PlateSpin Recon, the Upgrade confirmation dialog box is displayed. Click *Yes* to continue.

7 Select *Overwrite existing media*.

8 Click *OK*.

Backing Up the MS SQL 2005 Database

1 Launch SQL Management Studio and connect to the server.

2 Right-click the database you want to back up.

3 Select *Tasks* > *Backup* from the pop-up menu.

4 Select *Backup Type - Full*.

5 Select *Disk destination* and specify the new name and the location for the backup.

   Make sure that the system you select has enough free space for the database.

6 Click *Options* in the list to the left.

7 Select *Overwrite All Existing Backup Sets*.

8 Click *OK*.

Backing Up the PostgreSQL Database

1 Launch PgAdmin III and connect to the server.

2 Right-click the database you want to back up.

3 Select *Backup*.

4 Specify the filename for the backup. Ensure that the file does not already exist.

5 Accept default values for all options.

6 Click *OK*.

7 When the backup is finished, click *Done*.

2.2.2 Upgrading to PlateSpin Recon 3.7

To upgrade PlateSpin Recon, follow the instructions in Section 1.2, "Installing PlateSpin Recon," on page 12, paying special attention to the upgrade information.

If you customize reports prior to performing an upgrade, you might see duplicate names in the list of report templates in the Report Explorer. This is to prevent your custom information from being deleted during an upgrade.

Depending upon the result of the upgrade, do the following:

- If the upgrade is successful, continue with Section 2.2.3, "Post-Upgrade Task," on page 20.
- If the upgrade fails and you want to use the PlateSpin database, manually restore the database. For more information on how to restore the PlateSpin database, see Appendix C, "Restoring the Backed-Up Database," on page 35.

2.2.3 Post-Upgrade Task

After upgrading to PlateSpin Recon 3.7, you must refresh the inventory of all the existing machines to get the new features available in PlateSpin Recon 3.7.

1 In the Data Center Explorer, right-click the *All* node.

2 Click *Refresh Inventory* > *Now*.

3 (Conditional) To procure the monitoring data for the Disk IO counter for ESX 3.5/3i or later, you must stop and start monitoring for the machines. If the ESX machine is monitored through vCenter, you must stop and start monitoring for the vCenter also.

   You can start and stop monitoring for each machine, or do it for all the machines at the same time.

   To stop and start monitoring for all the ESX machines:

   1. In the *Filters* node, double-click *VM Servers*.
   2. Right-click *VMware ESX Server*, then click *Stop Monitoring*.
   3. After the monitoring has been successfully stopped, right-click *VMware ESX Server* again, then click *Start Monitoring*.

Setting Up PlateSpin Recon Licenses

3

A Novell® PlateSpin® Recon license entitles the user to one instance of PlateSpin Recon Server. No license is required to install and use the PlateSpin Recon Client.

PlateSpin Recon provides several licensing options at the time of purchase.

Per Use: Limits the amount of time and the number of servers that can be monitored. For example, ten server-days allows monitoring one server for ten days or two servers for five days.

Per Core: Licenses are tied to physical cores for monitoring, regardless of the operating system, platform, or the number of servers involved. If you inventory both the host and the VMs, the PlateSpin Recon licenses are calculated based on the cores of the host only, and the virtual CPU count is ignored. If you inventory only the VMs and not the host, the PlateSpin Recon counts one core per one virtual CPU, and the licenses are consumed based on the number of virtual CPUs assigned to the VM.

For example, assume that you have two physical hosts, PH1 and PH2, in your network. PH1 has 2 cores and PH2 has 4 cores. Each host machine has 5 VMs running on it, and each VM has 2 vCPUs. Therefore, the total number of vCPUs on each physical host is 10 (5 VMs multiplied by 2 vCPUs). The total number of PlateSpin Recon licenses consumed is calculated as follows:

- **Scenario 1:** If you inventory and monitor both physical hosts and VMs, the total number of PlateSpin Recon licenses consumed is the sum of the all cores of PH1 and PH2. Therefore, the total number of PlateSpin licenses consumed is 6 (2 cores of PH1 + 4 cores of PH2).
- **Scenario 2:** If you inventory and monitor PH1 and the VMs of PH2, the total number of PlateSpin Recon licenses consumed is the sum of the all cores of PH1 and all vCPUs on PH2. Therefore, the total number of PlateSpin licenses consumed is 12 (2 cores of PH1 + 10 vCPUs of PH2).

NOTE: License types cannot be combined. Licensing applies limits during inventory and monitoring, but not during discovery.

For more information about Virtual Center licensing, see "Virtual Center" in the *PlateSpin Recon User Guide*.

This section provides information about PlateSpin® Recon licensing.

3.1 Activating Your Product License

After PlateSpin Recon is purchased, PlateSpin sends an e-mail containing an activation code and product details. After installation, launch PlateSpin Recon and click *Activate* to launch the License Wizard. It prompts you to choose either online or offline activation.

- Section 3.1.1, “Online Activation,” on page 22
- Section 3.1.2, “Offline Activation,” on page 22

3.1.1 Online Activation

Online activation requires Internet access. An activation code and the e-mail address that was used to download the product are also necessary.

NOTE: HTTP proxy might cause failures during online activation. Offline activation is recommended for users in HTTP proxy environments.

To activate the license online:

1. Select the *Online Activation* option and click *Next*.
2. Specify the e-mail address and activation code.
3. Click *Next* to obtain the PlateSpin Recon license.

   The PlateSpin Recon Client obtains the required license via the Internet and activates the PlateSpin Recon Server.

3.1.2 Offline Activation

A user name, password, activation code, e-mail address, and hardware ID are required to get the license key file from the PlateSpin Activation site (http://www.platespin.com/productactivation/ActivateOrder.aspx).

To activate the license offline:

1. Select the *Offline Activation* option and click *Next*.
2. When prompted, enter the PlateSpin Recon license key file location.

   The PlateSpin Recon Client activates the PlateSpin Recon Server based on the license key file.

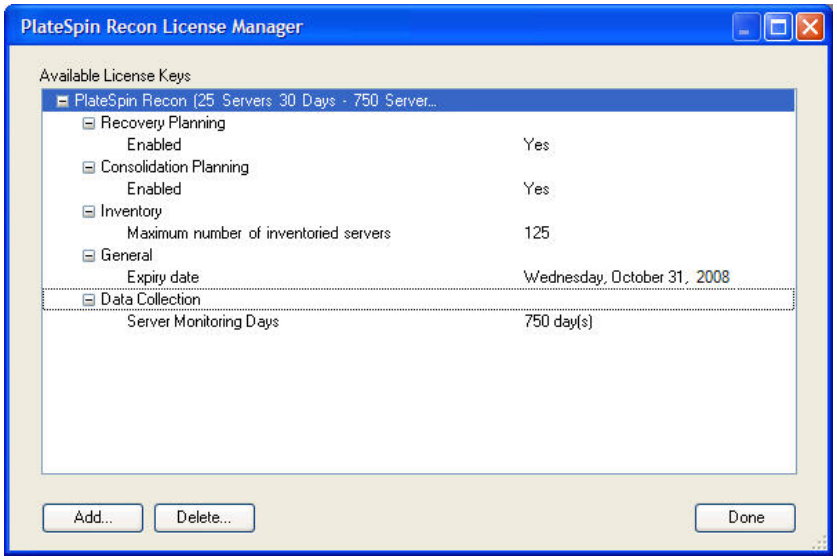
3.2 Managing Licenses

All PlateSpin Recon licenses are displayed in the PlateSpin Recon License Manager window. To access PlateSpin Recon License Manager, navigate to *Tools* and click *License Manager* on the PlateSpin Recon Client tool bar.

- Section 3.2.1, “Adding New Licenses,” on page 23
- Section 3.2.2, “Deleting Expired Licenses,” on page 23
- Section 3.2.3, “Splitting the Licenses,” on page 23

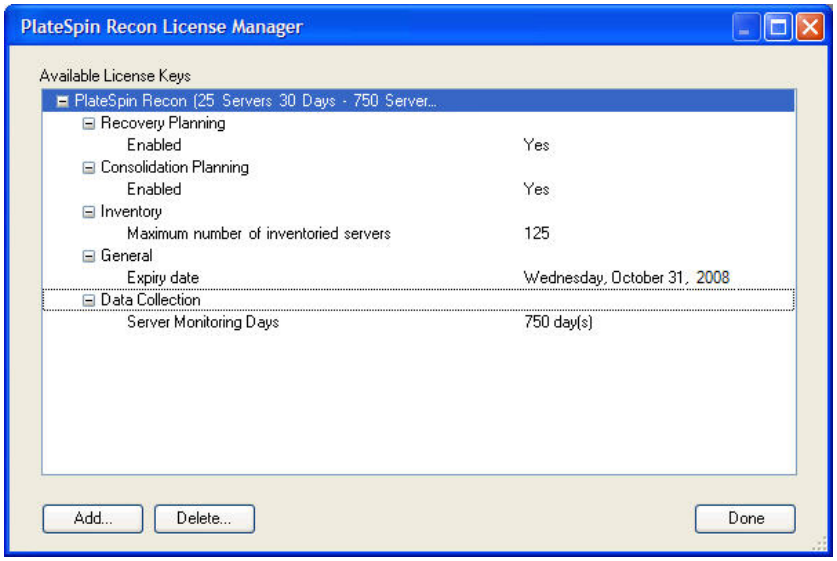
3.2.1 Adding New Licenses

Additional licenses can be added at any time by clicking *Add*.



3.2.2 Deleting Expired Licenses

Expired licenses can be deleted by selecting them and clicking *Delete*.



3.2.3 Splitting the Licenses

There are cases when more than one PlateSpin Recon Server is needed, such as a system using a number of remote sites that provide distributed monitoring to a central site for analysis, or a very large data center that exceeds the capacity of one PlateSpin Recon Server.

If necessary, a purchased license can be split between 2 or more servers. For example, a per-server license to monitor 1000 servers can be split into one license to monitor 400 servers and another to monitor 600. A per-use license for 3000 server-days of monitoring can be split into one license for 1200 server-days and one license for 1800 server-days.

For more information about splitting licenses, refer to Knowledge Base article Q20876 (http://support.platespin.com/kb2/article.aspx?id=20876).

Configuring PlateSpin Recon

4

This section provides information about configuring Novell® PlateSpin® Recon and your environment.

4.1 Network Ports

The following ports must be left open for use by PlateSpin Recon:

Table 4-1 *Required Port Access*

Port	Protocol	Port Usage Description
Discovery		
389	TCP	LDAP
3268	TCP	LDAP to Global Catalog
SNMP 161, 162	TCP/UDP	Standard SNMP
Inventory (Linux*/VMware ESX 2.5 or earlier)		
22	TCP	SSH Port used when adding supported Linux servers or VMware ESX Servers
Inventory (VMware Infrastructure 3.*x*)		
22	TCP	SSH Port used
443	TCP	VMware Infrastructure Web Services port
Inventory (Windows Servers)		
137	TCP/UDP	Netbios-ns
138	TCP/UDP	Netbios Datagram Service
135 (WMI inventory only)	TCP	For DCOM/RPC communication because PlateSpin Recon utilizes WMI when adding Windows-based servers
389 (Domain Inventory only)	TCP	LDAP
3268 (Domain Inventory only)	TCP	LDAP to Global Catalog
445	TCP/UDP	microsoft-ds
1024-5000 (WMI inventory only)	TCP	Dynamic RPC range for WMI
Inventory (NetWare®)		

Port	Protocol	Port Usage Description
524	TCP	Netware Inventorying
Monitoring		
22	TCP	Unix and Citrix Xen Monitoring
137	UDP	Netbios-ns
138	TCP	Netbios Datagram Service
445	TCP	
524	TCP	Netware Monitoring

4.2 Configuring Microsoft Windows Vista or Windows Server 2008

The following configurations are required or recommended to inventory Windows Vista or Windows Server 2008 with PlateSpin Recon:

- Section 4.2.1, “Enabling the Remote Registry Services,” on page 26
- Section 4.2.2, “Configuring the Firewall for the Inventory with WMI,” on page 26
- Section 4.2.3, “Enabling the File and Printer Sharing Exception in Windows Firewall,” on page 27

4.2.1 Enabling the Remote Registry Services

Remote Registry services need to be turned on to allow PlateSpin Recon monitoring to function correctly.

To set the Remote Registry service to automatic start:

1. Click *Start*.
2. In the search block; type `services.msc` and press Enter.
3. Right-click the *Remote Registry* service, then select *Properties*.
4. Select *Automatic* as the startup type.
5. Click *OK*.
6. Restart the computer to complete the changes.

4.2.2 Configuring the Firewall for the Inventory with WMI

Inventory with Windows Management Instrumentation (WMI) needs to have firewall exception rules set up.

To allow inventory with WMI:

1. Click *Start* > *Control Panel* > *Windows Firewall*.
2. Click *Change Settings*.

   The *Windows Firewall Settings* dialog box is displayed.

3 Click the *Exceptions* tab.

4 Enable the *Windows Management Instrumentation* check box.

5 Click *OK*.

6 Click *Start* > *Control Panel* > *System and Maintenance* > *Administrative Tools*.

7 Double-click *Windows Firewall with Advanced Security*.

The Windows Firewall with Advanced Security dialog box is displayed.

8 Click *Inbound Rules*.

The Inbound Rules are displayed.

9 Right-click the green/checked *Windows Management Instrumentation (Async-In)* rule and select *Properties*.

10 Click the *Scope* tab.

11 In the *Remote IP address* area, enable *Any IP address*.

12 Click *OK*.

13 Repeat Step 9 through Step 12 for the green/checked Inbound Rules *Windows Management Instrumentation (DCOM-In)* and *Windows Management Instrumentation (WMI-In)*.

4.2.3 Enabling the File and Printer Sharing Exception in Windows Firewall

To enable the file and printer sharing exception in Windows Firewall:

1 Click *Start* > *Control Panel* > *Windows Firewall*.

2 Click *Change Settings*.

The *Windows Firewall Settings* dialog box is displayed.

3 Click the *Exceptions* tab.

4 Select the *File and Printer Sharing* check box.

5 Click *OK*.

4.3 Configuring Monitoring for Citrix XenServer 5.*x*

Earlier versions of Citrix XenServer (such as 4.1) allowed instantaneous gathering of performance metrics, but changes to the XenServer API have deprecated this feature. Performance counters (CPU, Network, and Disk) return zero (0) in version 5.0 and later unless the XenServer Host is configured to gather the performance metrics by using the new API.

To configure Citrix XenServer performance monitoring:

1 On the XenServer host, enter the following in the console:

```
xe host-param-set other-config:rrd_update_interval=1 uuid=<host-uuid>
```

2 Restart the host.

PlateSpin Recon can now monitor Citrix XenServer 5.*x* and gather values for its performance counters. For more information, see Persistent XenServer Performance Statistics (http://docs.xensource.com/XenServer/5.0.0/1.0/en_gb/sdk.html#using_http).

Uninstalling PlateSpin Recon

5

The process to uninstall Novell® PlateSpin® Recon depends on how it is installed. As a general guideline, use the following procedure:

1. In Windows Add or Remove Programs (*Start* > *Settings* > *Control Panel*), remove the PlateSpin Recon Client, PlateSpin Server, and the database (PostgreSQL, MS SQL 2000/2005).
2. (Conditional) If MS SQL is your PlateSpin Recon database, manually delete the following items:
   - The directory where you installed the PlateSpin Recon 3.7 Server database during the PlateSpin Recon 3.7 Server installation.
   - The database files.
3. (Conditional) If you removes PostgreSQL in Step 1, manually delete the PlateSpin Recon user from your system:
   - **3a** Right-click *My Computer*, then click *Manage*.

     The Computer Management window is displayed.
   - **3b** Navigate to *Local Users and Groups* > *Users*.
   - **3c** Right-click the *PowerRecon* username, then click *Delete*.

NOTE: Uninstalling the PlateSpin Recon server does not remove the Recon database tables from the database server.

Troubleshooting

A

The following sections provide solutions to the problems you might encounter while installing or launching Novell® PlateSpin® Recon:

The PlateSpin Recon Installation Launcher window is not properly displayed if you launch the installer by double-clicking launcher.hta

Source: PlateSpin Recon; Installation.

Explanation: After you download `PlateSpin Recon.exe` and extract the files, the PlateSpin Recon Installation Launcher window is automatically displayed. If you close the window and relaunch the installer by double-clicking *`PlateSpin_Recon_file_extraction_location`*`\launcher.hta`, the content in the PlateSpin Recon Installation Launcher window is not completely displayed.

Action: Relaunch the PlateSpin Recon Installation Launcher.

1. Double-click the downloaded `PlateSpin Recon.exe`.
2. Extract the file to a temporary directory.

   The PlateSpin Recon Installation Launcher window is displayed with complete information.

Reinstalling PlateSpin Recon with the MS SQL database fails

Source: PlateSpin Recon; Installation.

Explanation: If you do not delete the PlateSpin MS SQL database directory after uninstalling PlateSpin Recon, and if you subsequently try to install PlateSpin Recon with the MS SQL Server database engine on the same machine, the installation fails.

Possible Cause: The PlateSpin MS SQL database directory is not deleted after you uninstall PlateSpin Recon.

Action: Do the following:

1. Close the PlateSpin Recon Installation Launcher window.
2. Manually delete the PlateSpin MS SQL database directory.
3. Reinstall PlateSpin Recon.

The PlateSpin Recon Client might fail to launch

Source: PlateSpin Recon; Client.

Explanation: A temporary directory is automatically created within the system's `temp` directory to store temporary files when you launch the PlateSpin Recon Client for the first time in the user session. By default, the system's `temp` directory is located in the `c:\users\administrator\appdata\local\` directory on Windows Server 2008, and in the `c:\documents and settings\administrator\local settings\` directory on Windows Server 2003.

If you delete the newly created temporary directory and try to launch the PlateSpin Recon Client, you encounter the following error message:

```
Could not find a part of the path
C:\Users\Administrator\AppData\Local\Temp\temporary_directory
```

Action: Restart the machine that has the PlateSpin Recon Client installed, and relaunch the PlateSpin Recon Client.

Action: Log out and log in again to the machine that has the PlateSpin Recon Client installed, and relaunch the PlateSpin Recon Client.

You might encounter an error related to Custom Action while upgrading from PlateSpin Recon 3.6.1 to PlateSpin Recon 3.7

Source: PlateSpin Recon; Upgrade.

Explanation: While upgrading from PlateSpin Recon 3.6.1 to PlateSpin Recon 3.7, you might encounter the following error:

```
Error running a custom action. The logs are stored in:
c:\documents and settings\administrator\application data
```

Action: Ignore the error message. In the error message dialog box, click *OK* to continue with the PlateSpin Recon 3.7 upgrade.

Starting and Stopping the PlateSpin Recon Services

B

Novell® PlateSpin® Recon is made up of the PlateSpin Recon Monitoring Service and the PlateSpin Recon Service. If you want to manually start and stop these services, review the information in the following sections:

B.1 Manually Starting the PlateSpin Recon Services

1. Open the Windows Services window in one of the following ways:.
   - From the desktop *Start* menu, click *Settings* > *Control Panel*, then double-click *Administrative Tools* > *Services*.
   - From the desktop *Start* menu, click *Run*, type `services.msc` in the *Open* option, then click *OK*.
2. Start the PlateSpin Recon Monitoring Service 3.7 and the PlateSpin Recon Service 3.7 in one of the following ways:
   - Right-click the PlateSpin Recon service you want to start, then click *Start*.
   - Select the PlateSpin Recon service you want to start, then click the *Action* menu > *Start*.
   - Select the PlateSpin Recon service you want to start, then click the ▶ icon on the toolbar.

B.2 Manually Stopping the PlateSpin Recon Services

1. Open the Windows Services window in one of the following ways:.
   - From the desktop *Start* menu, click *Settings* > *Control Panel*, then double-click *Administrative Tools* > *Services*.
   - From the desktop *Start* menu, click *Run*, type `services.msc` in the *Open* option, then click *OK*.
2. Stop the PlateSpin Recon Monitoring Service 3.7 and the PlateSpin Recon Service 3.7 in one of the following ways:
   - Right-click the PlateSpin Recon service you want to stop, then click *Stop*.
   - Select the PlateSpin Recon service you want to stop, then click the *Action* menu > *Stop*.
   - Select the PlateSpin Recon service you want to stop, then click the ■ icon on the toolbar.

Restoring the Backed-Up Database

C

Review the following sections to manually restore the backed-up Novell® PlateSpin® Recon databases:

C.1 Restoring the Backed-Up MS SQL 2000 Database

1. Launch Enterprise manager and connect to the server.
2. Make sure that you do not already have a database with the same name as the database you want to restore.
3. Right-click the *Databases* node in the tree on the left.
4. Select *All Tasks* > *Restore Database* from the pop-up menu.
5. Specify a new name for the database in the *Restore As Database* field.
6. Select *Restore From Device*.
7. Click *Select Devices*.
8. Click *Add*.
9. Select the file that contains the backup you want to restore.
10. Click *OK*.
11. Select *Restore backup set: Complete*.
12. Click the *Options* tab and make sure that the location where the database files will be created is correct. Change the location if necessary.
13. Click *OK*.

C.2 Restoring the Backed-Up MS SQL 2005 Database

1. Launch SQL Management Studio and connect to the server.
2. Make sure that you do not already have a database with the same name as the database you want to restore.
3. Right-click the *Databases* node in the tree on the left.
4. Select *Restore Database*.
5. Specify the new name for the database in the *To Database* field.
6. Select *From Device*.

7 Click the ... button.

8 Click *Add* and select the file that contains the backup you want to restore.

9 Click *OK*.

10 Select the check box next to the database backup set you want to restore. Only one set should be selected.

11 Click *Options* in the list on the left.

12 Make sure that the location where the database files will be created is correct. Change the location if necessary.

13 Click *OK*.

C.3 Restoring the Backed-Up PostgreSQL Database

1 Launch PgAdmin III and connect to the server.

2 Right-click the *Databases* node and select *New Database* from the pop-up menu.

3 Create the database in the correct table space with default parameters and a new name.

4 Right-click the database you just created and select *Restore* from the pop-up menu.

5 Select the name of the file that contains the backup you want to restore.

6 Click *OK*.

Several messages are displayed, ending with `Process returned exit code 1.`

IMPORTANT: Do not click *OK*.

---

7 Click *Cancel*.

Turning Off UAC on Windows Server 2008

D

1. Click *Start* > *Control Panel*.
2. In the Control Panel, click *User Accounts*.
3. In the User Accounts window, click *User Accounts*.
4. In the User Accounts tasks window, click *Turn User Account Control on or off*.
5. (Conditional) If UAC is currently configured in Admin Approval Mode, the `User Account Control` message is displayed. Click *Continue*.
6. Clear the *Use User Account Control (UAC) to help protect your computer* check box, and click *OK*.
7. Click *Restart Now* to immediately apply the change, or click *Restart Later* and close the User Accounts tasks window to apply the change the next time you restart your system.

Best Practices

E

These Best Practices are designed for data center operators and administrators who use Novell® PlateSpin® Recon to monitor workloads and do consolidation planning based on collected data. The information provided here has been compiled by the PlateSpin support team based on experience with hundreds of Real-Time Consolidation Accelerator users.

Where applicable, guidelines in Best Practices refer to PlateSpin Support Knowledge Base articles. To access the articles, use your PlateSpin download credentials. If you have forgotten your password, you can request a password reminder e-mail at: http://www.platespin.com/downloads/forgotpassword.aspx (http://www.platespin.com/downloads/forgotpassword.aspx)

E.1 Best Practices Planning

Guideline	Knowledge Base Article
Ensure that servers you plan to monitor are running on platforms and operating systems supported by PlateSpin Recon, and that they meet all software requirements.	Q20909 (http://support.platespin.com/kb2/article.aspx?id=20909): Supported platforms for Inventory and Data Collection Q20729 (http://support.platespin.com/kb2/article.aspx?id=20729): What PlateSpin Recon requires to add a server to its inventory
Plan your project and define the following parameters: ◆ Number of servers to monitor ◆ Duration of monitoring period	
Order the proper PlateSpin Recon licenses based on project parameters defined above. Use the License Entitlement Manager Web portal to view license orders and manage activation codes.	Q20876 (http://support.platespin.com/kb2/article.aspx?id=20876): PlateSpin License Entitlement Manager

E.2 Best Practices Installation and Setup

Guideline	Knowledge Base Article
Ensure that the designated PlateSpin Recon Server is compliant with the minimum system requirements.	Q20904 (http://support.platespin.com/kb2/article.aspx?id=20904): System Requirements for PlateSpin Recon
Consider recommended hardware specifications for various project sizes. PlateSpin Recon 3.7 supports up to 2,000 workloads per Server.	Q20887 (http://support.platespin.com/kb2/article.aspx?id=20887): PlateSpin Recon Installation Best Practices Guide
For large-scale projects (2,000 - 10,000 workloads) use multiple PlateSpin Recon collectors. Centralize analysis and planning by automatically and securely synchronizing data from collectors to a secure master instance of PlateSpin Recon.	
Ensure that the PlateSpin Recon Server has enough disk space for the projected database growth based on the number of workloads you plan to monitor.	Q20910 (http://support.platespin.com/kb2/article.aspx?id=20910): How large the PlateSpin Recon Database will grow
Set up designated PlateSpin Recon user accounts with administrative rights.	Q20726 (http://support.platespin.com/kb2/article.aspx?id=20726): PlateSpin Recon Best Practices for User Accounts
When using PostgreSQL*, set it up to allow remote connections (not allowed by default).	Q20889 (http://support.platespin.com/kb2/article.aspx?id=20889): Configure PostgreSQL to allow Remote connections
To inventory virtual machines hosted by VMware GSX Server, install the VmCOM API on the PlateSpin Recon server (otherwise the VMs will not be visible).	Q20516 (http://support.platespin.com/kb2/article.aspx?id=20516): Installing the VMware GSX Server VmCOM API on the PlateSpin Recon server.

E.3 Best Practices for Upgrade

Before upgrading to PlateSpin Recon 3.7, it is recommended that you take a snapshot of all the existing PlateSpin Recon data. For more information on snapshots, see "Working with PlateSpin Recon Snapshots" in the *PlateSpin Recon User Guide*.