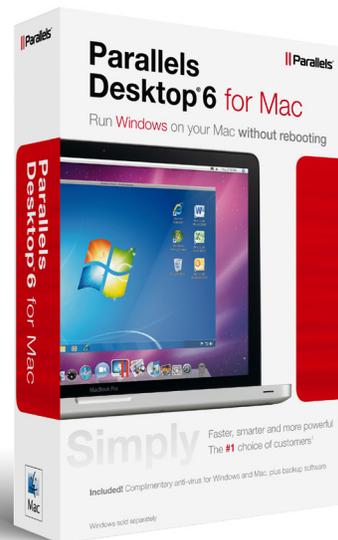


# Administering Parallels Desktop 6 for Mac with the Casper Suite

Technical Paper  
May 2011



 JAMF Software, LLC  
© 2011 JAMF Software, LLC. All rights reserved.

JAMF Software has made all efforts to ensure that this guide is accurate.

JAMF Software  
1011 Washington Ave. South  
Suite 350  
Minneapolis, MN 55415  
(612) 605-6625

Apple and Mac OS X are a trademark of Apple Inc., registered in the U.S. and other countries.

Casper Admin, Casper Remote, the Casper Suite, Composer, JAMF Software, the JAMF Software logo, and the JAMF Software Server (JSS) are trademarks of JAMF Software, LLC, registered in the U.S. and other countries.

Parallels and Parallels Desktop 6 for Mac are registered trademarks of Parallels Holdings, Ltd. and its affiliates.

All other product and service names mentioned are the trademarks of their respective companies.

# Contents

<b>Page 4</b>	<b>Introduction</b> Target Audience What's in This Guide Important Concepts Additional Resources
<b>Page 6</b>	<b>Requirements</b>
<b>Page 7</b>	<b>Deploying Parallels Desktop</b> Creating an Autodeploy Package Creating a Virtual Machine Creating a Virtual Machine DMG Uploading the Autodeploy Package and the Virtual Machine DMG Deploying the Autodeploy Package and the Virtual Machine DMG
<b>Page 14</b>	<b>Registering the Virtual Machine</b>
<b>Page 16</b>	<b>Reporting on Parallels Desktop</b> Creating a Licensed Software Record Updating Inventory Generating a Licensed Software Report Generating an Application Usage Report Creating a Smart Computer Group

# Introduction

## Target Audience

This guide is designed for Casper Suite administrators who plan to administer Parallels Desktop® 6 for Mac in the enterprise.

## What's in This Guide

This guide provides step-by-step instructions for deploying, registering, and reporting on Parallels Desktop with the Casper Suite.

## Important Concepts

Administrators using this guide should be familiar with the following Casper Suite-related concepts:

- Package management
- Deployment
- Licensed software reporting
- Application usage reporting
- Smart computer groups

## Additional Resources

For more information on applications, concepts, and processes related to the Casper Suite, download the *Casper Suite Administrator's Guide* available at:

<http://jamfsoftware.com/resources/documentation>

For more information on Parallels Desktop 6 for Mac, see the *Parallels Desktop Users Guide* available at:

[http://download.parallels.com/desktop/v6/docs/en/Parallels\\_Desktop\\_Users\\_Guide.pdf](http://download.parallels.com/desktop/v6/docs/en/Parallels_Desktop_Users_Guide.pdf)

For more information on the Parallels Desktop Autodeploy package, see the *Mass Deployment of Parallels Desktop* guide available at:

[http://download.parallels.com/desktop/v6/docs/en/Mass\\_Deployment\\_of\\_Parallels\\_Desktop.pdf](http://download.parallels.com/desktop/v6/docs/en/Mass_Deployment_of_Parallels_Desktop.pdf)

# Requirements

To administer Parallels Desktop using the instructions in this guide, you need:

- Casper Suite v8.1 or later running in your environment
- A Parallels Desktop 6 for Mac installer disk image
- A valid Parallels Desktop serial number
- Access to the JAMF Software Server (JSS)
- Casper Admin
- Casper Remote
- Composer

# Deploying Parallels Desktop

Deploying Parallels Desktop involves the following steps:

1. Create a Parallels Autodeploy package.
2. Create a virtual machine.
3. Create a virtual machine DMG.
4. Upload the Autodeploy package and the virtual machine DMG to the JSS.
5. Deploy the Autodeploy package and the virtual machine DMG.

## Creating an Autodeploy Package

1. Download the Parallels Autodeploy package from:  
<http://download.parallels.com/desktop/tools/pd-autodeploy.zip>
2. Download the *Parallels Desktop 6 Mass Deployment* guide from:  
[http://download.parallels.com/desktop/v6/docs/en/Mass\\_Deployment\\_of\\_Parallels\\_Desktop.pdf](http://download.parallels.com/desktop/v6/docs/en/Mass_Deployment_of_Parallels_Desktop.pdf)
3. Follow the instructions in the “Adding Parallels Desktop” section to create an Autodeploy package.

**Important:** Do not add a virtual machine to the Autodeploy package.

**Note:** Currently, Parallels volume licenses are available for customers purchasing 20 seats or more. Volume serial codes can be deployed to multiple computers as a single package.

When you are finished creating the Autodeploy package, it should contain the Parallels Desktop software and serial number.

## Creating a Virtual Machine

1. Download the *Parallels Desktop 6 Users Guide* from:  
[http://download.parallels.com/desktop/v6/docs/en/Parallels\\_Desktop\\_Users\\_Guide.pdf](http://download.parallels.com/desktop/v6/docs/en/Parallels_Desktop_Users_Guide.pdf)
2. Follow the instructions in the “Setting Up a Virtual Machine” section to create a virtual machine.

3. When you get to the **Name and Location** pane in the **New Virtual Machine Assistant**, select the **Share with other users of this Mac** checkbox.

This saves the virtual machine in the `/Users/Shared/Parallels/` directory.

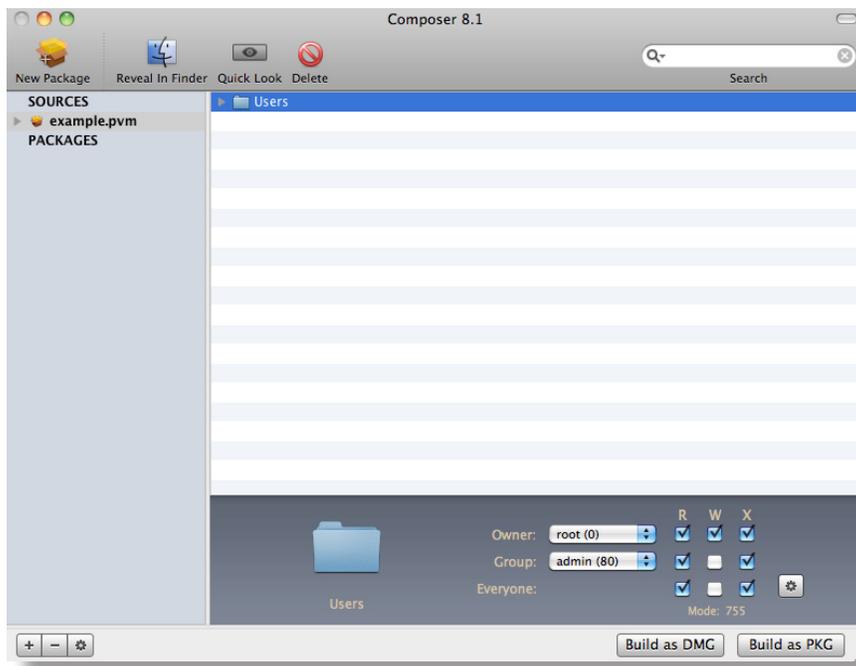
When you are finished creating the virtual machine it is saved as a `.pvm` file.

## Creating a Virtual Machine DMG

Before deploying the virtual machine, package it as a DMG using the Composer application.

**To create a virtual machine DMG:**

1. Open Composer.
2. Open a Finder window and locate the virtual machine `.pvm` file.  
If you followed the instructions in this guide, the file is located in the `/Users/Shared/Parallels/` directory.
3. Drag the `.pvm` file to the Sources list in Composer.
4. When Composer is finished creating the package source, click the **Build as DMG** button.



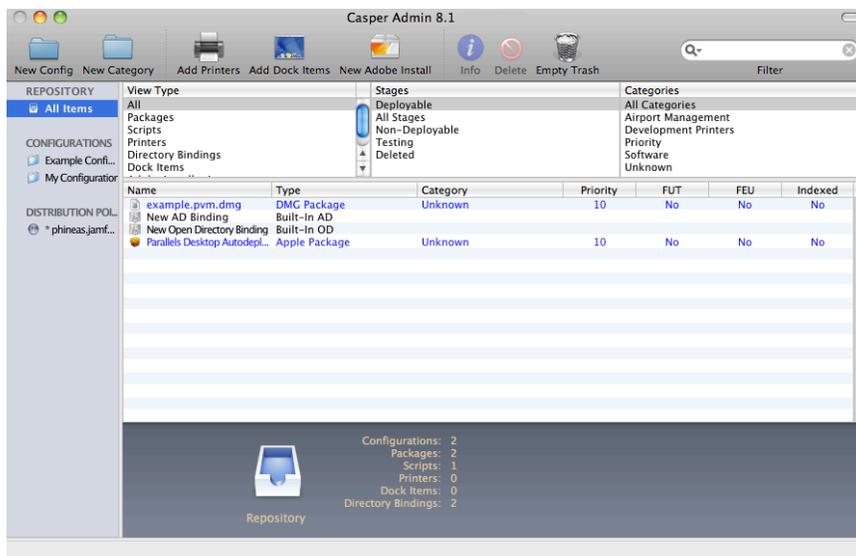
5. When prompted, save the package in the desired location.
6. When Composer is finished building the package, quit the application.

# Uploading the Autodeploy Package and the Virtual Machine DMG

Once you have created both the Autodeploy package and the virtual machine DMG, upload them to the JSS using the Casper Admin application.

To upload the Autodeploy package and the virtual machine DMG:

1. Open Casper Admin.
2. Log in using credentials for a JSS administrator account.
3. Drag the Autodeploy package and the virtual machine DMG into the repository in Casper Admin.
4. Double-click the Autodeploy package in the repository.



5. In the **Information** pane that appears, click the **Info** tab.
6. Use the **Category** pop-up menu to assign the package to a category and then click the **OK** button.
7. Double-click the virtual machine DMG in the repository.
8. In the **Information** pane that appears, click the **Info** tab.
9. Use the **Category** pop-up menu to assign the package to a category and then click the **OK** button.
10. Save your changes and quit the application.

# Deploying the Autodeploy Package and the Virtual Machine DMG

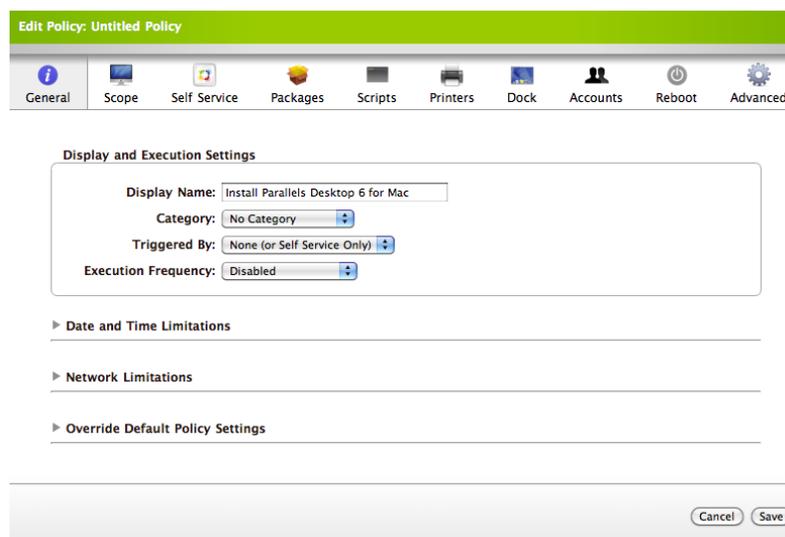
Deploy the Autodeploy package and the virtual machine DMG together using one of following deployment methods:

- A policy
- Casper Remote
- During imaging
- Self Service

**Note:** This guide does not include instructions for the Self Service method. See the “Making Policies Available through Self Service” section in the *Casper Suite Administrator’s Guide* for instructions.

**To deploy the Autodeploy package and the virtual machine DMG using a policy:**

1. Log in to the JSS with a web browser.
2. Click the **Management** tab.
3. Click the **Policies** link.
4. Click the **Create Policy** button in the toolbar.
5. Choose the **Create policy manually** option and click **Continue**.
6. In the **Display Name** field, enter a display name for the policy.
7. Use the **Triggered By** pop-up menu to choose a trigger for the policy. The recommended trigger is “every15”.

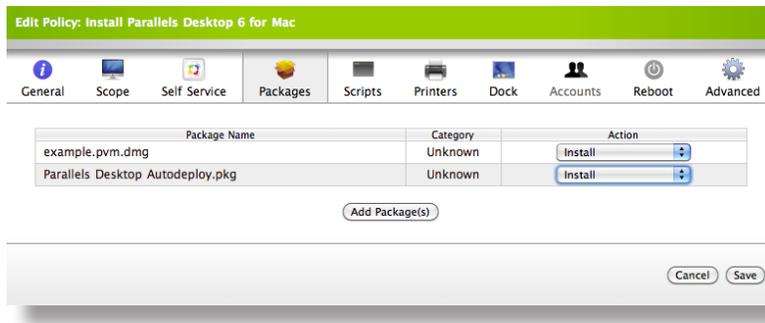


The screenshot shows the 'Edit Policy: Untitled Policy' dialog box in the Jamf Pro interface. The dialog has a green title bar and a toolbar with icons for General, Scope, Self Service, Packages, Scripts, Printers, Dock, Accounts, Reboot, and Advanced. The 'General' tab is selected. The 'Display and Execution Settings' section is expanded, showing the following configuration:

- Display Name:** Install Parallels Desktop 6 for Mac
- Category:** No Category
- Triggered By:** None (or Self Service Only)
- Execution Frequency:** Disabled

Below this section are three collapsed sections: 'Date and Time Limitations', 'Network Limitations', and 'Override Default Policy Settings'. At the bottom right of the dialog are 'Cancel' and 'Save' buttons.

8. Select "Once per computer" from the **Execution Frequency** pop-up menu.
9. Click the **Scope** tab and assign a scope to the policy.
10. Click the **Packages** tab and then click the **Add Package** link.
11. Locate the Autodeploy package and the virtual machine DMG in the list of packages and then choose "Install" from the **Action** pop-up menus across from them.
12. Click the **Add Package(s)** button at the bottom of the list.



13. Click the **Save** button.

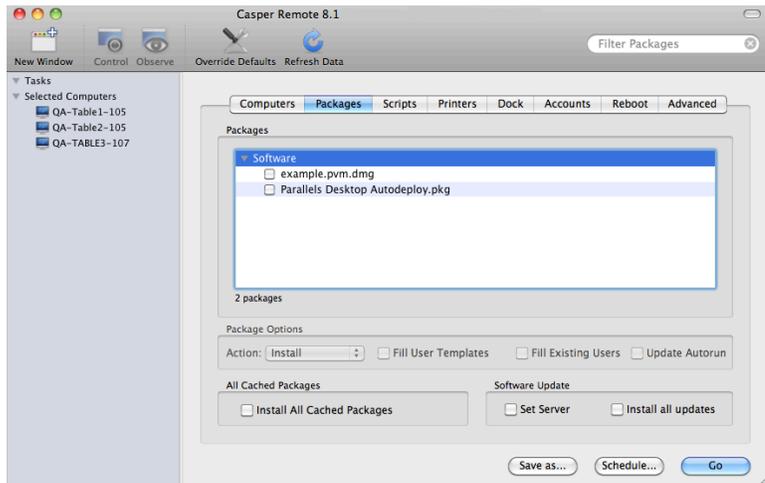
If you selected the "every15" trigger as recommended, the package is deployed within the next 15 minutes to computers in the scope.

See the "Registering the Virtual Machine" section in this guide for instructions on registering the virtual machine using a policy. In certain environments, deployment and virtual machine registration can be merged into a single policy.

#### To deploy the Autodeploy package and the virtual machine DMG using Casper Remote:

1. Open Casper Remote
2. Log in using credentials for a JSS administrator account.
3. On the **Computers** tab, locate the computers that you want to receive the deployment and select the checkbox next to each one.
4. Click the **Packages** tab.

5. Locate the Autodeploy package and the virtual machine DMG in the Packages list, and select the checkbox next to each one.



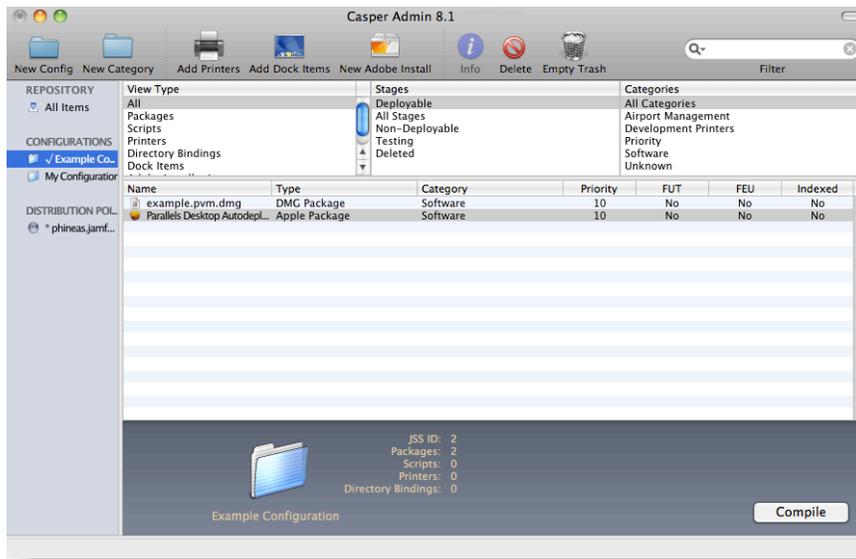
6. Click the **Go** button to initiate the deployment.
7. When the deployment is complete, quit the application.

The Autodeploy package and the virtual machine DMG are immediately deployed to target computers.

#### **To deploy the Autodeploy package and the virtual machine DMG during imaging:**

1. Open Casper Admin.
2. Log in using credentials for a JSS administrator account.
3. Drag the Autodeploy package and the virtual machine DMG from the repository to a configuration in the sidebar.
4. Select the configuration in the sidebar.

5. Double-click the Autodeploy package in the repository.



6. In the **Information** pane that appears, click the **Options** tab.
7. Select the **This package must be installed to the boot volume at imaging time** checkbox.
8. Click the **OK** button.

The Autodeploy package and the virtual machine DMG are deployed the next time you use the configuration to image computers.

# Registering the Virtual Machine

Parallels Desktop virtual machines must be registered with the application to appear in the Virtual Machine list at first launch. There are two ways to accomplish this:

1. On the client, double-click the virtual machine .pvm file in a Finder window.
2. Create a policy that runs the following registration command at user login:

```
sudo -u <username> prlctl register "/Users/Shared/  
Parallels/<example.pvm>"
```

Additionally, you can dynamically pass the user name by running the following command as part of a script using a "login" or Self Service policy:

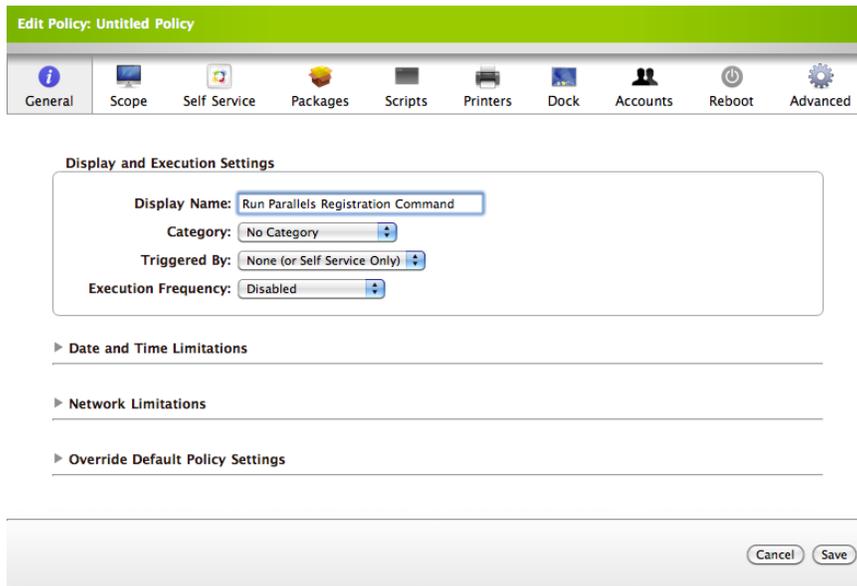
```
sudo -u $3 prlctl register "/Users/Shared/Parallels/<example.pvm>"
```

If you choose to deploy a script, you must first upload it to the JSS using Casper Admin. For detailed instructions, see the "Managing Scripts" section in the *Casper Suite Administrator's Guide*.

## To run the registration command using a policy:

1. Log in to the JSS with a web browser.
2. Click the **Management** tab.
3. Click the **Policies** link.
4. Click the **Create Policy** button in the toolbar.
5. Choose the **Create policy manually** option and click **Continue**.
6. In the **Display Name** field, enter a display name for the policy.

7. Choose "login" from the **Triggered By** pop-up menu.



8. Choose "Once per user" from the **Execution Frequency** pop-up menu.
9. Click the **Scope** tab and assign the appropriate users to the scope.
10. If you are including the registration command as a script to dynamically populate the user name, click the **Scripts** tab and add the script. Then, skip to step 12.  
For detailed instructions on adding a script to a policy, see the "Policies" section in the *Casper Suite Administrator's Guide*.
11. If you are hard coding the registration command, click the **Advanced** tab and enter the following command in the **Run Command** field, making sure to specify the <username> and <example.pvm> variables:

```
sudo -u <username> prlctl register "/Users/Shared/  
Parallels/<example.pvm>"
```

**Note:** You must hardcode the <username> and <example.pvm> variables in this command. They cannot be dynamically populated from this field.

12. Click the **Save** button.

The policy runs the next time users in the scope log in to their computers.

# Reporting on Parallels Desktop

After deploying Parallels Desktop and registering the virtual machine, you can use the Casper Suite to track licenses and report on how often they are used. This information can be used to:

- Remediate clients that do not have Parallels Desktop installed
- Retrieve unused licenses

Reporting on Parallels Desktop involves the following steps:

1. Create a licensed software record.
2. Update inventory in the JSS.
3. Generate a Licensed Software report.
4. Generate an Application Usage report.
5. Create a smart computer group.

## Creating a Licensed Software Record

Creating a licensed software record allows you to store Parallels Desktop licensing information in the JSS.

**To create a licensed software record:**

1. Log in to the JSS with a web browser.
2. Click the **Settings** tab.
3. Click the **Licensed Software Management** link.
4. Click the **Create Licensed Software** button in the toolbar.
5. Enter a name for the record, such as "Parallels Desktop 6.0 for Mac".
6. Enter the name of the publisher in the **Publisher** field. In this case, enter "Parallels Holdings, Ltd."

7. Choose "Macintosh" from the **Platform** pop-up menu.

**Edit Licensed Software:**

Info Licenses Software Definitions

Display Name: Parallels Desktop 6.0 for M

Publisher: Parallels Holdings, Ltd.

Platform: Any

Send Email Notification on Violation

Remove Software Titles from Inventory Reports

Notes:

Cancel Save

8. Click the **Licenses** tab and click **Add License**.
9. In the **Serial Number 1** and **Serial Number 2** fields, enter serial numbers for Parallels Desktop as needed.

**Edit Licensed Software: Parallels Desktop 6.0 for Mac**

Info Licenses Software Definitions

**License Info**

Serial Number 1:

Serial Number 2:

Organization Name:

Registered To:

License For:  Licenses  Concurrent Licenses  Site License

Notes:

Cancel Store License

10. Make sure the **Licenses For** option is selected and enter the number of licenses in the **Licenses** field.
11. Click the **Store License** button.
12. Click the **Software Definitions** tab.

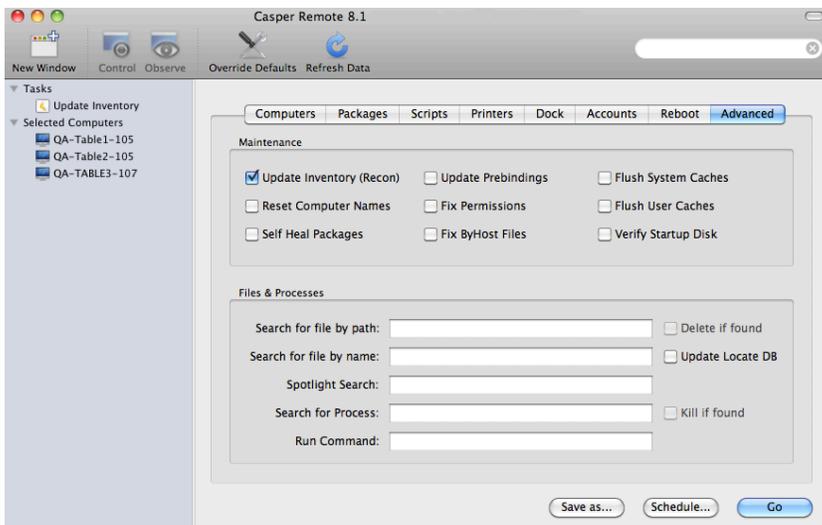
13. Click **Add Application**.
14. Enter "Parallels Desktop.app" as the application title.
15. Choose "like" from the **Version** pop-up menu and enter "6" as the version number.
16. Click the **Store Definition** button.
17. Click the **Save** button.

## Updating Inventory

The JSS must contain up-to-date inventory information to generate accurate reports. Although computers automatically submit updated inventory reports to the JSS according to the set frequency, you may want to generate inventory reports on the fly. You can do this using the Casper Remote application.

### To update inventory using Casper Remote:

1. Open Casper Remote.
2. Log in using credentials for a JSS administrator account.
3. On the **Computers** tab, select the checkbox next to each computer that has Parallels Desktop installed.
4. Click the **Advanced** tab.
5. Select the **Update Inventory** checkbox.
6. Click the **Go** button to initiate the update.



7. When the update is complete, quit the application.

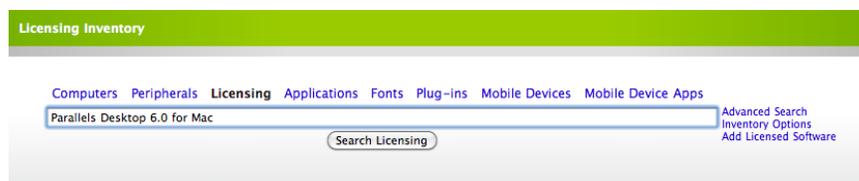
## Generating a Licensed Software Report

Licensed Software reports allow you to view the following information about the licenses owned by your organization:

- Number of licenses owned
- Number of licenses in use
- Computers that have the licenses installed

### To generate a Licensed Software report:

1. Log in to the JSS with a web browser.
2. Click the **Inventory** tab.
3. Click the **Licensing** link above the search field.
4. Enter the licensed software title in the search field. In this case, type "Parallels Desktop 6.0 for Mac".
5. Click the **Search Licensing** button, or type the **Enter** key.



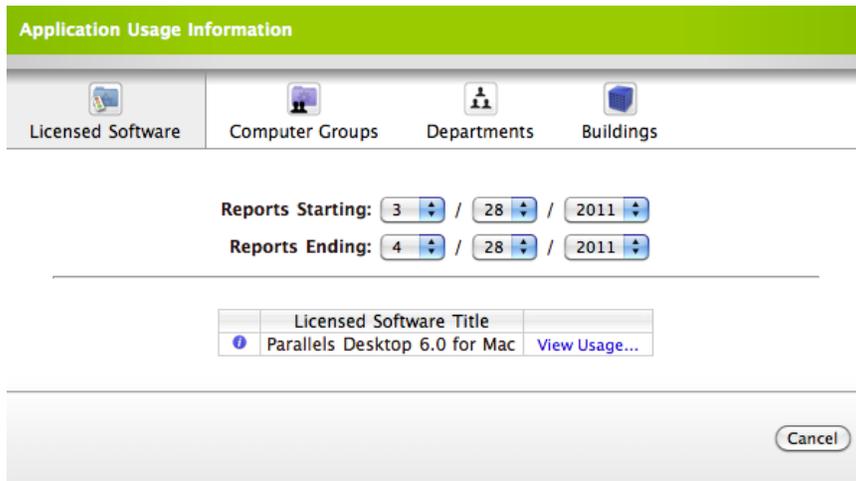
## Generating an Application Usage Report

Application Usage reports go one step beyond license tracking by allowing you to view which licenses are being used. You can then create a computer group based on the results of the report and use it to reclaim unused licenses.

### To generate an Application Usage report:

1. Log in to the JSS with a web browser.
2. Click the **Logs** tab.
3. Click **Application Usage Logs**.
4. Use the **Reports Starting** and **Reports Ending** pop-up menus to set a date range for the report.

5. Click **View Usage** across from the “Parallels Desktop 6.0 for Mac” to view full usage details.



#### To reclaim unused licenses:

1. Generate an Application Usage report as explained in the previous procedure.
2. After clicking the **View Usage** link, click the **Unused Licenses** tab.  
This displays a list of computers that have unused licenses.
3. Click the **Create Computer Group** button to create a group that contains these computers.
4. Create a policy to uninstall Parallels Desktop and assign the group you just created as the scope.  
For detailed instructions, see the “Uninstalling Packages” section in the *Casper Suite Administrators Guide*.

## Creating a Smart Computer Group

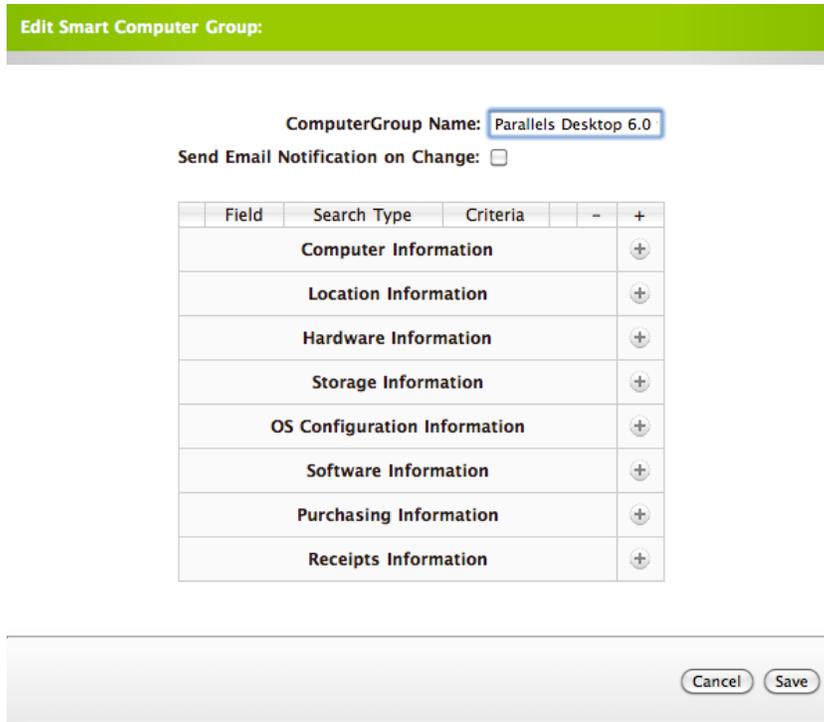
Smart computer groups can be used when you need to deploy policies or report on computers that have Parallels Desktop installed. Group membership is updated automatically when computers submit inventory reports to the JSS.

The following instruction explain how to create a smart computer group for computers that have Parallels Desktop installed.

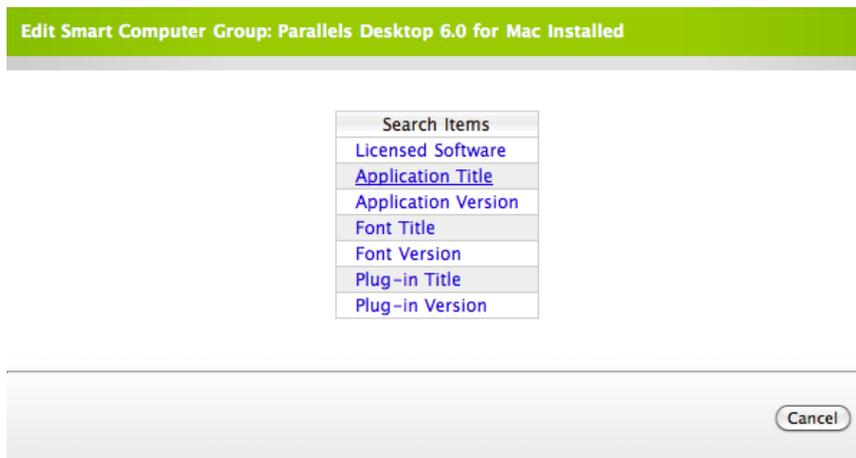
#### To create a smart computer group:

1. Log in to the JSS with a web browser.
2. Click the **Management** tab.
3. Click **Smart Computer Groups**.

4. Click the **Create Smart Group** button in the toolbar.
5. Enter a name for the group, such as “Parallels Desktop 6.0 for Mac Installed”.
6. In the list of categories, click **Add (+)** across from **Software Information**.



7. Click **Application Title** in the list of items.



- Make sure that "has" is selected in the pop-up menu and type "Parallels Desktop.app" in the text field.

Edit Smart Computer Group: Parallels Desktop 6.0 for Mac Installed

ComputerGroup Name:

Send Email Notification on Change:

Field	Search Type	Criteria	-	+
<b>Computer Information</b>				
Location Information				
Hardware Information				
Storage Information				
OS Configuration Information				
<b>Software Information</b>				
Application Title	has	<input type="text" value=""/>	-	+
Purchasing Information				
Receipts Information				

- Click **Add (+)** across from **Application Title**, and then click **Application Version**.
- Choose "is" from the pop-up menu and type "6.0" in the text field.
- Click the **Save** button.

Edit Smart Computer Group: Parallels Desktop 6.0 for Mac Installed

ComputerGroup Name:

Send Email Notification on Change:

Field	Search Type	Criteria	-	+
<b>Computer Information</b>				
Location Information				
Hardware Information				
Storage Information				
OS Configuration Information				
<b>Software Information</b>				
Application Title	has	<input type="text" value="Parallels Desktop.app"/>	-	+
and	Application Version	is	<input type="text" value="6.0"/>	-
Purchasing Information				
Receipts Information				