

# **SOFTWARE DELIVERY SOLUTION – TARGETED SOFTWARE DEPLOYMENTS**

## **Introduction**

Almost all internal IT departments are inundated with the management and deployment of software in the enterprise. Administrators spend a large amount of their time deploying applications at the enterprise level or at the departmental level. Altiris Software Delivery Solution provides a powerful platform for automating the tasks of deploying software throughout an enterprise. By using this Targeted Software Deployments method you will be able to sleep well at night knowing that your deployments are accurate, on time, and completely manageable.

## **Choosing Applications for Targeted Software Deployments**

Applications best suited for this Targeted Software Deployment method are applications that are freeware such as Adobe Reader or applications that issue a site license such as Microsoft Office and can be deployed to either a department of clients or at the enterprise level. Applications that issue licenses on a per-workstation or per-user basis are usually not suitable for this Targeted Software Deployment method as these types of applications should be requested by each individual user so that you can minimize your licensing costs. Although the Targeted Software Deployment method is not best suited for these types of applications, Software Delivery Solution can certainly be modified to accommodate applications with this type of licensing model, especially when used in conjunction with the Software Portal, see the article “Leveraging the Altiris Software Portal” by Scott Hardie for some great information on the Software Portal. This article will focus more on deploying software at the departmental level and the enterprise level.

## **Choosing Targeted Computers**

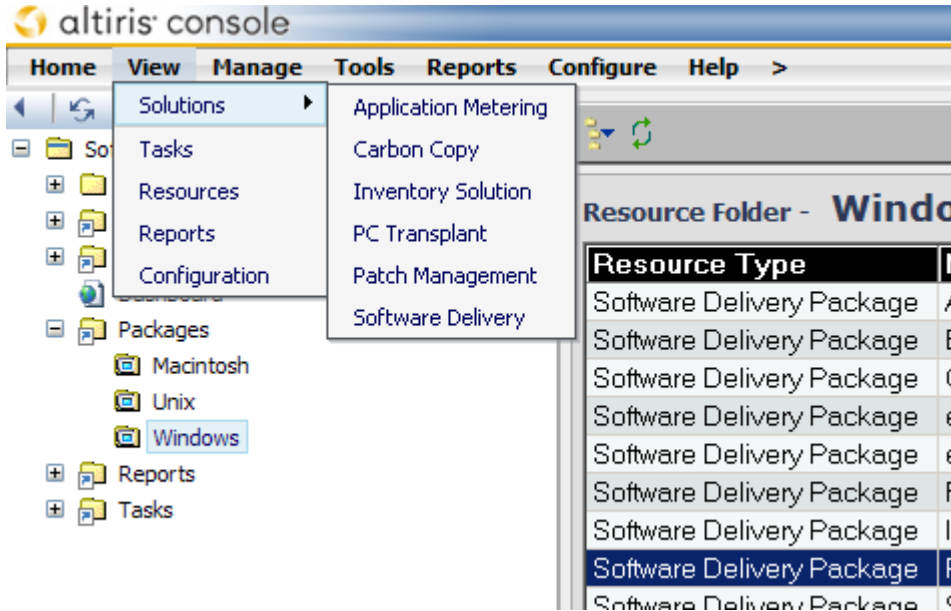
Once the application has been chosen, you will need to decide which computers that you will be deploying it to. Altiris ships with hundreds of collections that can be utilized for software deployments. To help illustrate the more advanced principles within this article, we will walk through all needed steps to perform a Targeted Delivery through an example application that will require the creation of customized collections.

## **Configuring Software Delivery Solution**

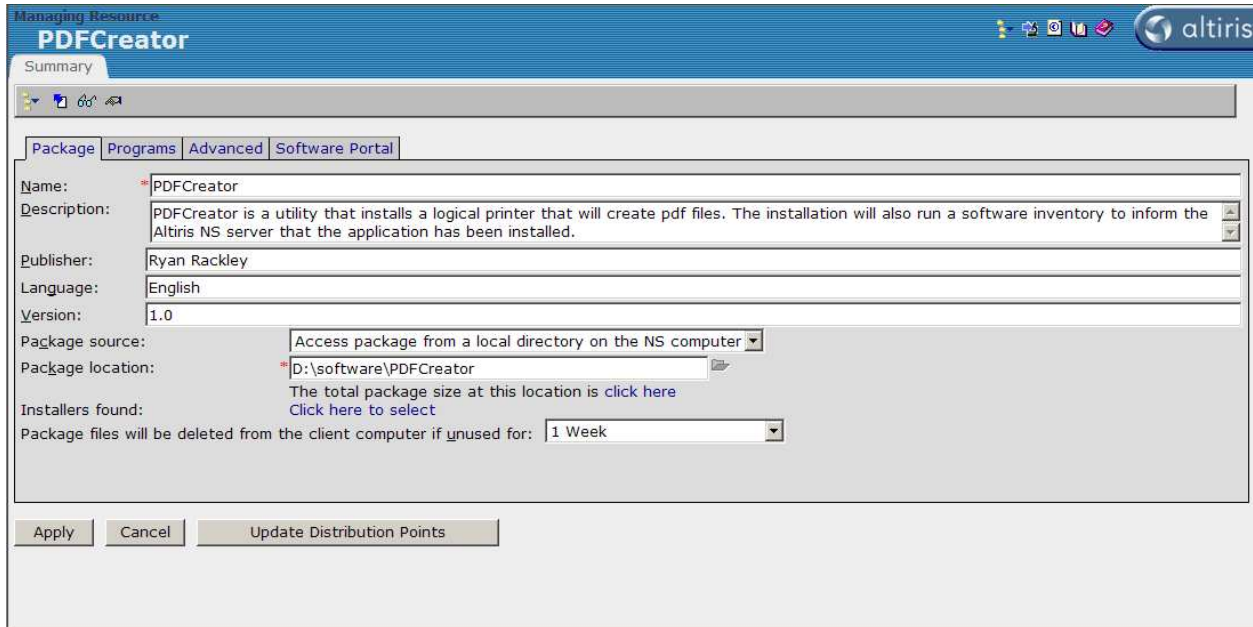
For the Targeted Software Deployment method to be successful, there are some requirements that need to be met. Software Delivery Solution needs to be installed to your Altiris Notification Server, Inventory Solution must be installed to your Altiris Notification Server, the Altiris Agent must be installed on your clients, and the Software Delivery Agent must be installed on your clients. In an effort to keep this article brief and to the point, please refer to your Altiris documentation to perform these tasks.

# Creating Software Delivery Packages

To be able to distribute software you need to create a 'Software Package'. To do so open your Altiris Console and select 'View → Solutions → Software Delivery → Packages → Windows'



Right click the 'Windows' folder and select 'New → Software Delivery Package'. Give it a name, description, publisher, language, version, package source, package location, and how long the client will cache the files.



Go to the 'Programs' tab and create a program for this package. You will need to fill out all applicable fields such as the command line, run with rights, whether or not to run if a user is logged on, etc.

The screenshot shows the 'Managing Resource' interface for 'PDFCreator'. The 'Summary' tab is active, and the 'Programs' sub-tab is selected. The main configuration area is titled 'Program' and contains the following fields and options:

- Program:** PDFCreator Install (with 'New' and 'Delete' buttons)
- Name:** \*PDFCreator Install
- Description:** (empty text area)
- Applications:** Click here to select
- Installer:** (empty text area)
- Command line:** \*PDFCreator-Install.bat
- Working directory:** (empty text area)
- Success codes:** 0
- Failure codes:** (empty text area)
- Estimated disk space:** 0 Kb
- After running:** No action required
- Starting window:** Hidden
- Run with rights:** System Account
- Program can run:** Whether or not a user is logged on
  - User Input Required.
  - Run once for:
    - Each logged on user
    - Specific users or groups
- This program requires a network connection.
  - Minimum connection speed: (empty text area)
  - Default connection speed: (empty dropdown menu)

At the bottom of the window, there are three buttons: 'Apply', 'Cancel', and 'Update Distribution Points'.

Go to the 'Advanced' tab to fill in the Agent display name and description (leave blank to use the Package/Program name) and to assign it to your package servers. The package in this example is 15Mb and has been assigned to all package servers to minimize WAN utilization as package servers can be throttled during business hours.

The screenshot shows the 'Managing Resource' interface for 'PDFCreator'. The 'Advanced' tab is active, displaying configuration options for the package. The 'Agent display name' is set to 'PDFCreator Install'. The 'Agent display description' field is empty. There are three checkboxes: 'Enable verbose reporting of package status events' is checked, 'Use Alternate Download Destination on Client' is unchecked, and 'Package Destination Location on package servers (leave blank for default):' is unchecked. The 'Assign package to' dropdown is set to 'All Package Servers'. At the bottom, there are buttons for 'Apply', 'Cancel', and 'Update Distribution Points'.

## Creating Targeted Collections

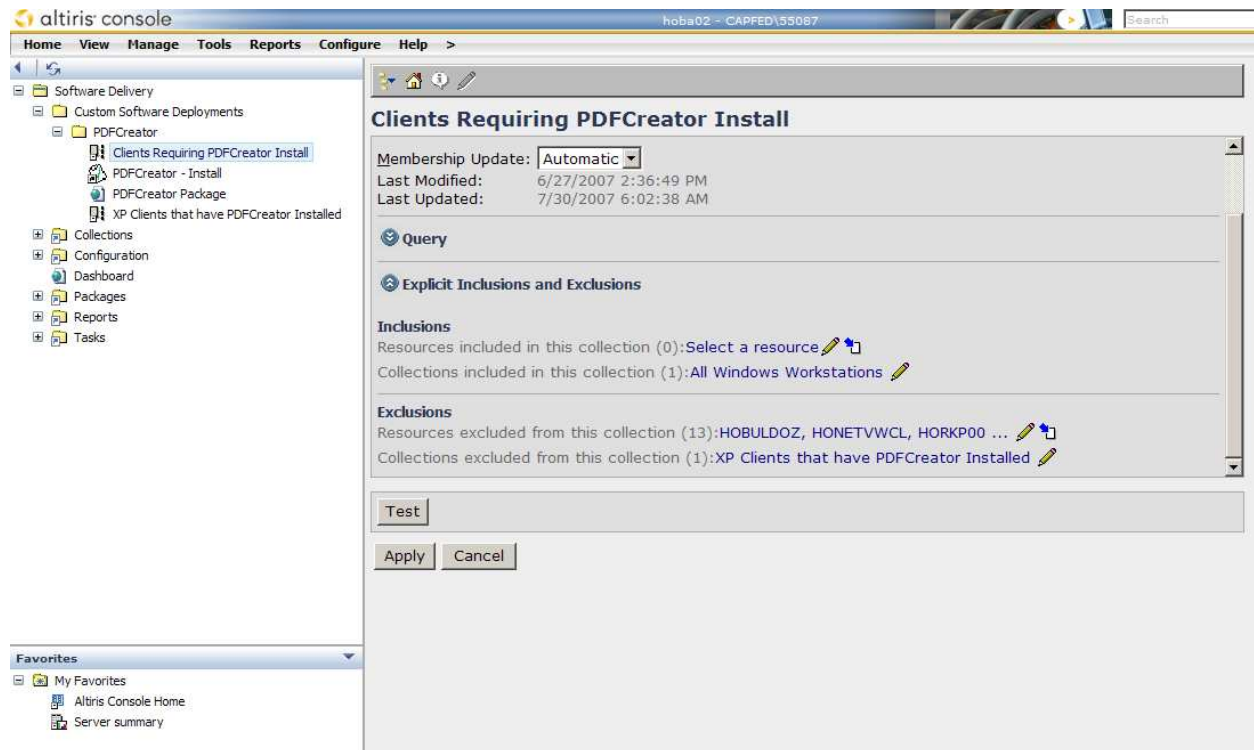
The meat and potatoes of this software deployment method lie within custom collections. We are going to create two collections that will automate the deployment of software for us.

The first custom collection called 'XP Clients that have PDFCreator Installed' consists of all workstations that have the example application registered in the 'Add/Remove Programs' applet. This collection uses the following SQL Query:

```
SELECT c.Guid
FROM vComputer c
JOIN Inv_AeX_OS_Add_Remove_Programs arp
ON c.Guid = arp.[_ResourceGuid]
WHERE c.[os name] like 'micro%'
and c.IsManaged=1
and c.[os name] not like '%server%'
and c.[os name] not like '%2000%'
and arp.Name like '%PDFCreator%'
```

This query will return all clients that have an OS name like micro% and are managed by the Notification Server and the OS Name does not contain server and the OS Name does not contain 2000 and have an entry in their Add/Remove Programs list that contains PDFCreator.

The second custom collection will be called 'Clients Requiring PDFCreator Install' and will consist of an inclusion of the built in Altiris collection of 'All Windows Workstations' and will exclude a handful of specific workstations and a custom collection which is called 'XP Clients that have PDFCreator Installed' that was just created.



## Creating Software Delivery Task

Go to 'View → Solutions → Software Delivery → Tasks → Windows → Software Delivery Tasks'. Right click on the Software Delivery Tasks and select 'New → Software Delivery Task'. Fill out the task details giving it a Name, Description, Priority, assign the package as we created above, assign the program within that package as we created above, set the Run schedule (notice the schedule I have set below to run at 8pm every day, this will be explained in more detail later), and all other needed options.

The screenshot shows a configuration window for a Software Delivery Task. The window has a title bar with standard icons and a menu bar with 'abl', 'X', and other icons. Below the title bar are three tabs: 'General', 'Advanced', and 'Status', with 'General' selected. The main content area is divided into several sections:

- Enable:** A checkbox labeled 'Enable (currently enabled)' is checked.
- Name:** A text field contains '\*PDFCreator - Install'.
- Description:** A text area contains 'Task to install PDFCreator... this is based off of a custom collection.'
- Priority:** A dropdown menu is set to 'Normal'.
- Package Name:** A text field contains '\* PDFCreator' with a pencil icon and a 'Go To Package' link.
- Program name:** A dropdown menu contains 'PDFCreator Install' with a 'Go To Program' link.
- Applies to collections:** A text field contains '\* Clients Requiring PDFCreator Install' with a pencil icon.
- Run:** This section has two columns. The left column has radio buttons for 'Manual' and 'On a schedule', with 'On a schedule' selected. The right column has three sub-sections:
  - This task will...** with options: 'Run as soon as computer is notified (only runs once)' (unchecked), 'Run on a schedule: At 8:00 PM every 1 days, starting Wednesday, June 27, 2007' (checked), 'Run 'as soon as possible' after the scheduled time' (selected), and 'Only run at scheduled time' (unchecked).
  - At the designated time the server should...** with options: 'Power up the computer (Wake On LAN)' (unchecked) and 'Immediately notify each computer of task' (unchecked).
  - When this task becomes available...** with options: 'User can run this task immediately' (checked), 'Notify the user when this task is available' (unchecked), and 'Warn the user before running this task' (unchecked).
- Removal:** A checkbox 'Remove this task after successful install' is unchecked.
- Availability:** A 'From' field contains '2007-06-27 00:00' and a dropdown menu is set to 'and Never Expires'. A checkbox 'using the Server's time' is checked.

At the bottom of the window are 'Apply' and 'Cancel' buttons.

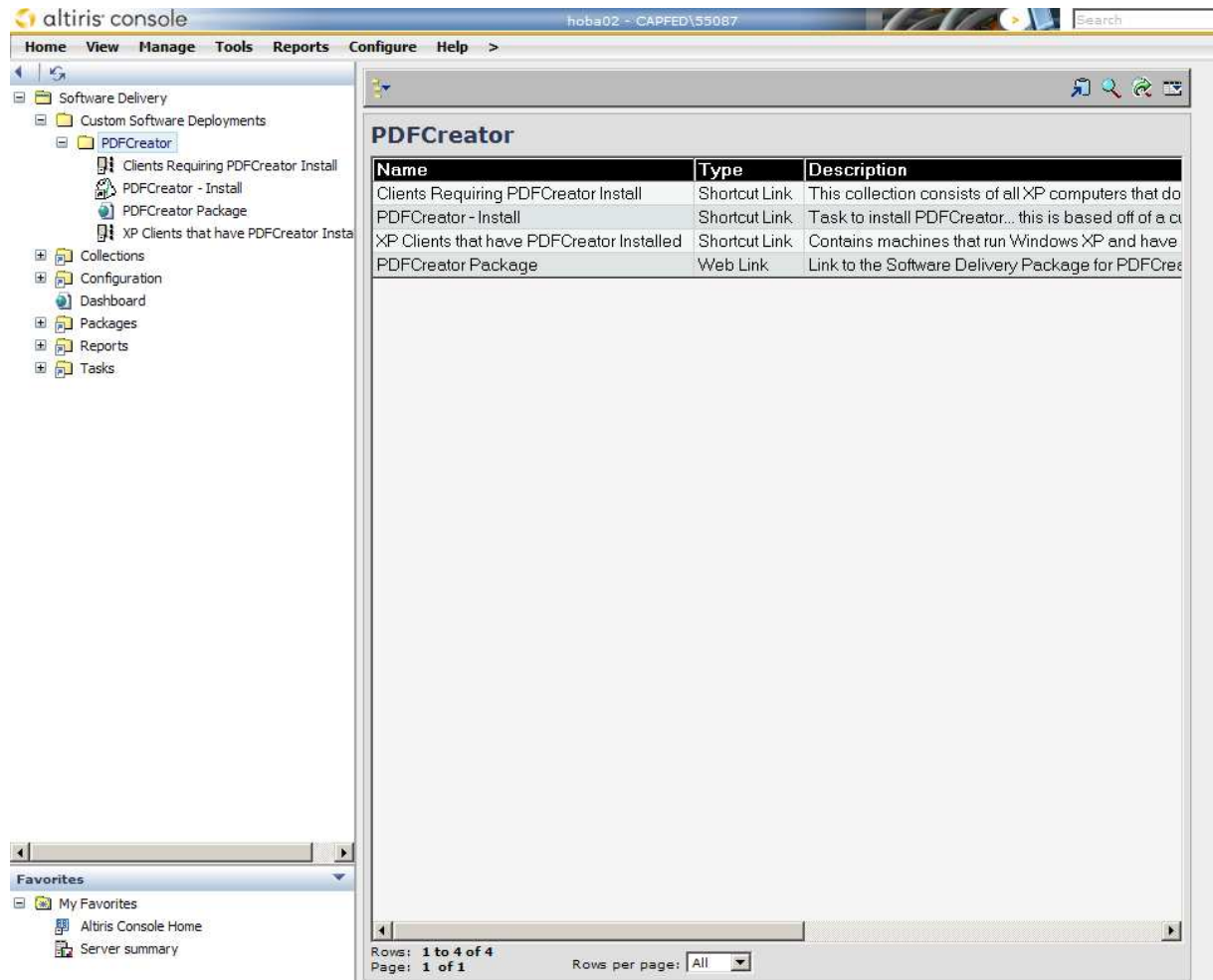
Wondering why this Software Delivery Task is setup to run every day? Well, what I am about to explain to you should help light your office a bit as the light bulb appears above your head. The Software Delivery Task is set to run every day because of the dynamic nature of the collection it applies to. When this Software Delivery Task is executed, it runs the program and package which installs the needed application and then an hour later the daily software inventory runs and posts its updated configuration

to the Notification Server which updates the collection as it was setup to update 'Automatically'. So when the application is installed the client removes itself from the targeted list of clients which is why we can run it on a schedule.

## Creating a Centralized View

This last step in setting up this Targeted Software Deployment is to create a centralized view of all of the components that are used to deploy the application. It is very useful to complete this step as the components of this software deployment method will have you clicking all over the Altiris Console, centralizing the view will help you achieve a better overall picture of what is needed to execute this software delivery method.

Go to 'View → Solutions → Software Delivery' and create a new folder called 'Custom Software Deployments'. Within this folder we are going to link to all required components relating to this software deployment. Right Click the folder you just created and select 'New → Item Link'



The screenshot shows the Altiris Console interface. The left sidebar displays a tree view under 'Software Delivery' with a folder named 'Custom Software Deployments' containing a sub-folder 'PDFCreator'. The main pane shows a table titled 'PDFCreator' with the following data:

Name	Type	Description
Clients Requiring PDFCreator Install	Shortcut Link	This collection consists of all XP computers that do
PDFCreator - Install	Shortcut Link	Task to install PDFCreator... this is based off of a cu
XP Clients that have PDFCreator Installed	Shortcut Link	Contains machines that run Windows XP and have
PDFCreator Package	Web Link	Link to the Software Delivery Package for PDFCre

At the bottom of the table, it indicates 'Rows: 1 to 4 of 4' and 'Page: 1 of 1'. The 'Rows per page' is set to 'All'.

Right Click the folder you just created and select 'New → Item Link → Resources → Collections' and select the collection for which you just created above. Create Item Links for the two custom collections

you have created and for the Software Deployment Task. You will need to create a web link for the PDFCreator Package.

## End User Self Service

This software delivery method also allows for a limited amount of user self service as well. If your user is logged onto a client that is currently a member of the 'Clients Requiring PDFCreator Install' the user can open the Altiris Agent, go to the Software Delivery tab and run the install themselves as long as you leave the 'User can run this task immediately' option enabled on the Software Delivery Task.

## Conclusion

In the beginning of this article I stated that: "By using the Targeted Software Deployments method you will be able to sleep well at night knowing that your deployments are accurate, on time, and completely manageable." I would like to conclude this article by further defining the claims made:

- **Deployments are Accurate:** by using the power of custom collections you can deploy your applications with great accuracy. Altiris ships with hundreds of collections that can all be used for software deployment and on top of that you can create a customized collection based on a SQL query that will infinitely increase your ability to fine tune which clients will be deployed to. How about all clients in the Audit department at your Kansas City location that run Windows XP and already have MS Office 2003 or newer and have at least 512Mb of system memory? Utilizing this method your answer will be 'no problem' with a smirk as your colleagues run for the hills.
- **Deployments are on time:** Since we have set the Software Delivery Task to execute every day, a failed software installation is no big deal. By setting your Software Delivery Task to execute on a daily schedule you can be assured that even if the first attempt failed the application deployment will be successful to that client eventually. If you are seeing a high failure rate on your installs; all that needs to be done is set the schedule to repeat every 10 minutes.
- **Deployments are Completely Manageable:** Suppose you need to deploy an update to an application that has been previously deployed from media, no problem – this method applies to updates as well as new installs. It is very simple to modify this method to produce the granularity needed to perform any kind of software deployment; see 'Deployments are Accurate' bullet above. Also, when a new client is introduced to your network there is nothing that can be forgotten with this method. This method leaves little if no room for mistakes at the tactical level.