

# HP Universal Print Driver

Series for Windows

Active Directory Administrator Template White Paper



## Table of Contents:

|  |          |
|--|----------|
| <b>Purpose .....</b>   | <b>2</b> |
| <b>Active Directory Administrative Template Overview .....</b>               | <b>2</b> |
| <b>Decide whether to use AD template or MPA to manage UPD policies .....</b> | <b>2</b> |
| <b>Installing the UPD Admin template .....</b>                               | <b>3</b> |
| <b>Configuring the AD Template Policy Objects .....</b>                      | <b>3</b> |
| <b>Managing Printer Lists .....</b>  | <b>5</b> |
| <b>Frequently Asked Questions.....</b>                                       | <b>6</b> |
| <b>Appendix A Installing AD Template on Windows 2000 .....</b>               | <b>7</b> |
| <b>Appendix B Verification and Troubleshooting.....</b>                      | <b>9</b> |

## **Purpose**

This White Paper introduces you to Hewlett-Packard's latest Universal Print Driver tool called the HP UPD Active Directory Administrative Template and is meant to be used as a guide for installing and configuring the UPD user policies within your Active Directory environment. In addition to the HP Managed Printing Administrator software released back in July of 2006, this new Administrative Template file provides our enterprise customers the ability to create Active Directory Group Policy objects that can be used to manage the UPD Policies and Printer Lists from within their existing Active Directory infrastructure.

## **Hewlett-Packard's UPD Active Directory Template Overview**

Hewlett-Packard's Universal Print Driver continues to improve printing and increase the number of tools available to printing administrators. Our latest offering is the HP UPD Administrative Template which, when installed in your Active Directory will allow full control of your UPD printing experience within your existing Active Directory infrastructure. Simply add the UPD AD Administrative template to your existing Group Policy Objects or create new custom UPD Group Policy objects for each user, group or Organizational Unit. In addition to creating Policies for the UPD, you can also enter the location of managed printer lists that have been created by the HP Managed Print Administrator Software (MPA) or by exporting printer groups from your HP Web JetAdmin database in the form of XML files

## **Supported HP UPD versions**

The HP Active Directory Administrative Template is supported on HP's UPD version 4.0 which is now available for download at <http://www.hp.com/go/upd>

## **Decide whether to use HP Admin Templates or HP MPA to manage UPD policies**

The decision to use the MPA software or AD template to manage the UPD policies should be based on the size of your network infrastructure and your plans for managing the UPD down to the user level.

The UPD AD Administrative Template integrates easily into an existing Active Directory infrastructure and allows for easy creation of group Policy Objects to be linked to users groups and Organizational Units. An experienced AD administrator will be able to easily integrate the UPD Group Policy objects in large enterprise environments without having to re-create users and groups.

If however your environment is smaller or where individual management of UPD policies is not as much of a concern to you, using MPA software may be the best and easiest method for creating a smaller number of individual policies.

## **Installing the UPD AD Administrative Template**

### **Windows 2003 using Microsoft GMPC**

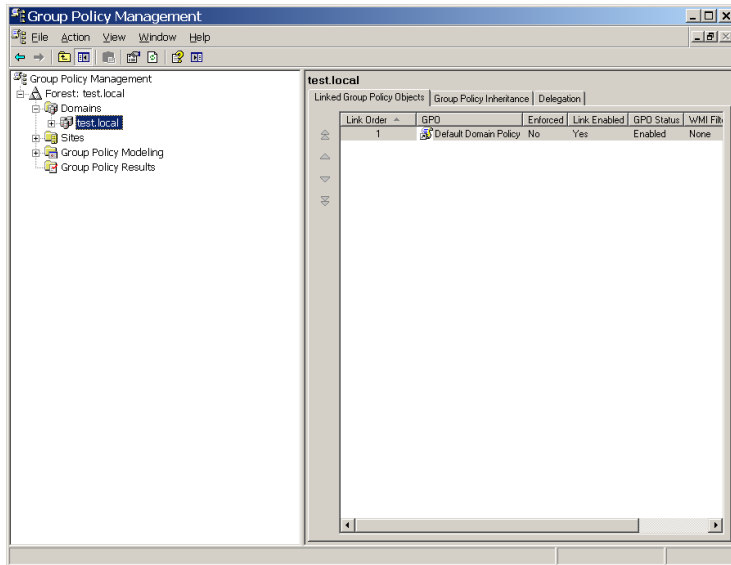
The following shows the procedure for creating and linking group policy objects using the Microsoft Group Policy Management Console (GPMC). The Microsoft Group Policy Management Console is available for Microsoft Server 2003 and Windows XP. For Microsoft Server 2000 please refer to the instructions in Appendix A. This example creates a group policy object and sets it as the default policy for the entire domain, which in this case is named test.local. The procedure is similar for creating and linking group policy objects for organizational units, users, groups, etc.

### **Steps**

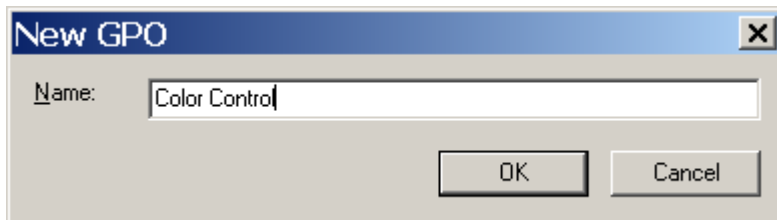
Download the HP UPD Active Directory Template file from the following location:

<http://www.hp.com/go/UPD> File name is HP\_MPP\_2.adm.

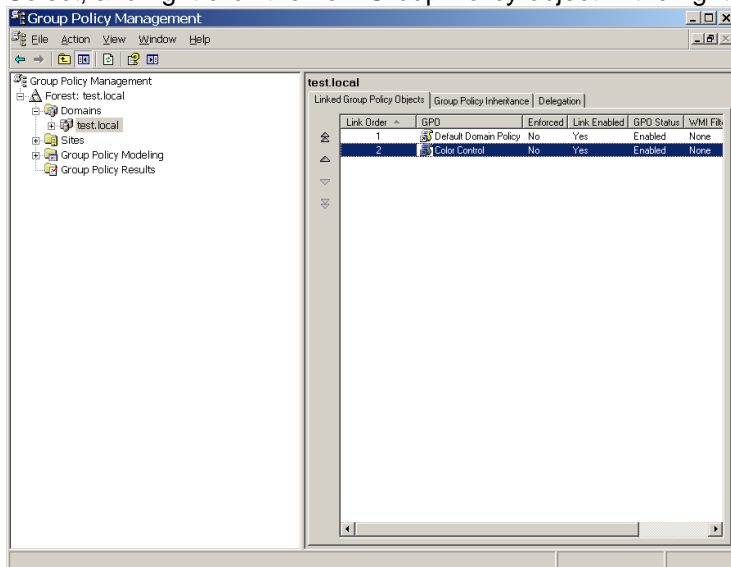
Copy the Administrative Template file, HP\_MPP\_2.adm file, to the \windows\inf directory on domain server.  
Open the Microsoft Group Policy Management Console



Right click the server name, which in this case is named test.local  
 Click **Create and Link a GPO here**  
 Give the new GPO a name and click OK



Select, and right click the new Group Policy object in the right hand window pane.



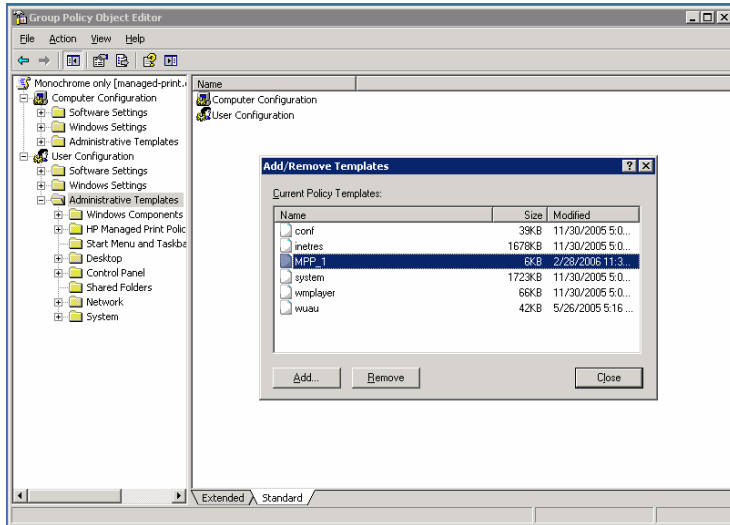
Select and click **Edit**

This brings up the Microsoft Group Policy Object Editor

### Microsoft Group Policy Object Editor

From this utility you can install or add the HP AD Administrative template, edit your settings, etc.

Right click **User Configuration -> Administrative Templates** and select **Add/Remove Templates**  
Browse to and select the hp supplied template (HP\_MPP\_2.adm).

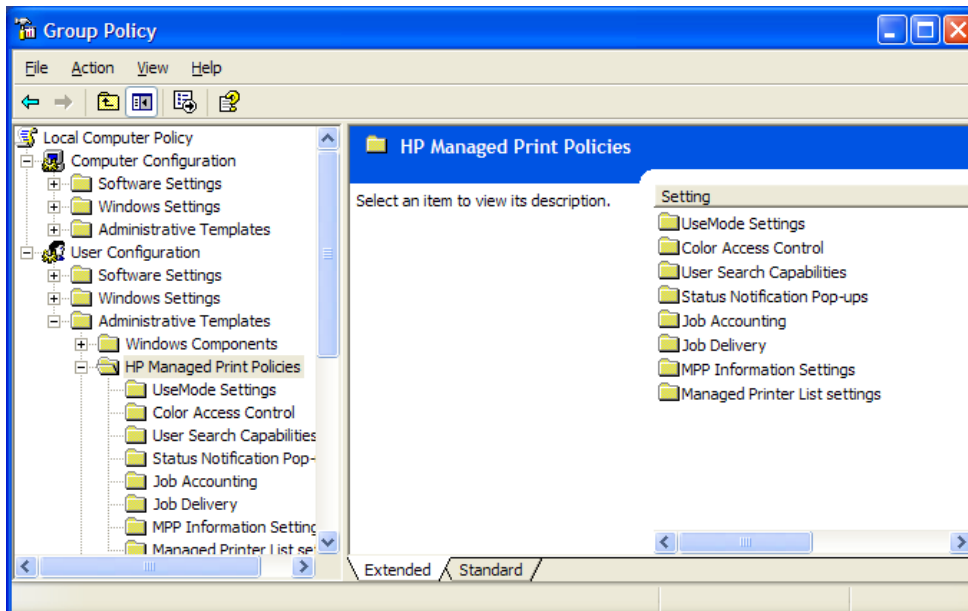


The Policies that can be configured to manage the UPD behaviors are very similar to those that can be found in the HP Managed Printing Administrator tool. For a complete explanation of each of the features of these policies please refer to the Service Administrators Guide that can be found at [www.hp.com/go/upd](http://www.hp.com/go/upd)

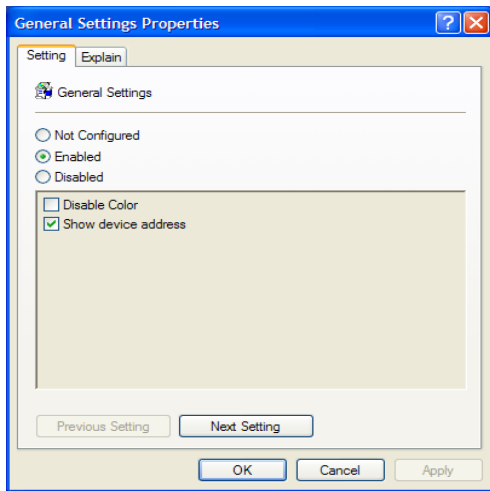
Special Note: The operation of Restricted Mode is different between MPA and AD Administrative Template and is now called User Interactive Settings.

Configure Policies with HP UPD Active Directory Template

To manage and configure the UPD Policies settings, open User Configuration->Administrative Templates->HP Managed Print Policies. .



Configuring the Policies for the UPD is similar to configuring any other Group Policy within the Active Directory Group policy environment. The screen below shows one of the UPD AD settings pages that have been opened.



Implementing Managed Printer Lists within the UPD AD Template file.

Printer lists for use in the Active Directory Group Policy environment are created outside of the AD Group Policy object, and linked to the Active Directory within each Group Policy Object. Create Managed Printer Lists using the Managed Printing Administrator or by exporting printer lists from Web JetAdmin. For each policy object created, up to 20 managed printer lists can be selected.

#### Custom MPL Count

The number here must match the number of Printer Lists that are being entered.

#### HP MPL Only

Check this if all of the printer lists have been created by the HP MPA software tool.

#### Name

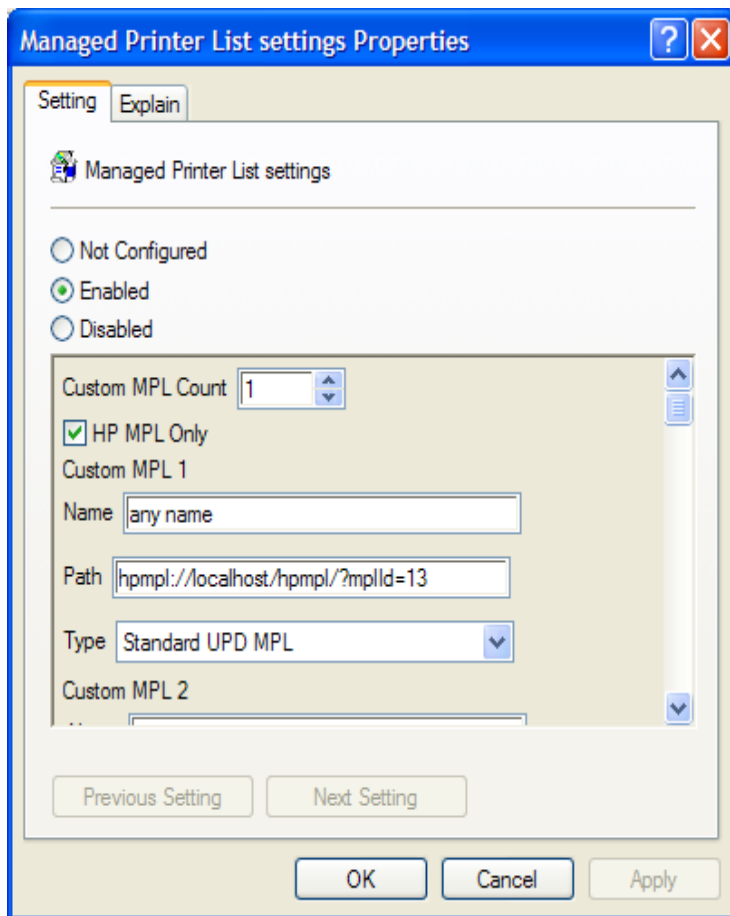
The name can be any name that you want to be displayed for each group.

#### Path

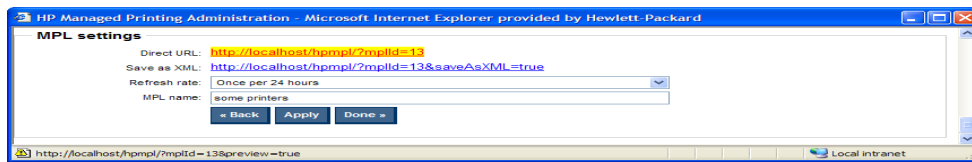
When pointing to printer lists created by MPA, change the protocol to HPMPML instead of HTTP. If pointing to printer lists created by exporting WJA printer lists then ensure that HTTP is the protocol

#### Type

Choose the correct type of printer list being selected. Standard UPD MPL for printer lists created by HP MPA, or Web JetAdmin MPL XML for printer lists exported by WJA.



When entering the path for printer lists created by HP MPA, you can cut and paste the direct location of the printer list by entering edit mode for the printer list and cutting and pasting the Direct URL entry found at the bottom of the printer list.



\*\*\*Don't forget to properly set the Protocol in the path statement to match the origin of the printer lists. \*\*\*

## Frequently Asked Questions

How does the UPD obtain the Policy settings for each user?

The UPD goes through the following routine to obtain the Policy settings for each user.

1. The UPD looks at the user and determines if the user is a domain user
2. The UPD then contacts the domain controller to make ensure it is still active. If so, the UPD will read the local user registry settings for Specific UPD policy settings
3. If the above conditions do not exist, the UPD looks for the existence of Managed-Print Administrator running on the network and will see if any policies have been created for the user. If so, then the UPD policy settings are pushed to the local user registry and define the user UPD experience.
4. If no policies are defined by the AD template or MPA tool, the UPD behaves as a normal driver with no restrictions or policies defined.

If I have MPA and AD templates running simultaneously, which set of policies take priority? Active Directory Admin Templates take precedence over everything else followed by MPA defined policies, and finally default settings.

How can I setup printer lists for each user?

Printer lists can be created within the MPA software tool, or by exporting printer lists from Web Jetadmin into XML format.

Are both modes of the UPD (traditional and dynamic) managed through AD Admin Templates and MPA?

Yes, both operating modes of the UPD are manageable through the Active Directory Group Policy and MPA Application

What versions of the UPD support the Active Directory Group Policy?

UPD version 4.0 supports the Active Directory Admin Group Policy.

How much does the Active Directory Administrative Template cost?

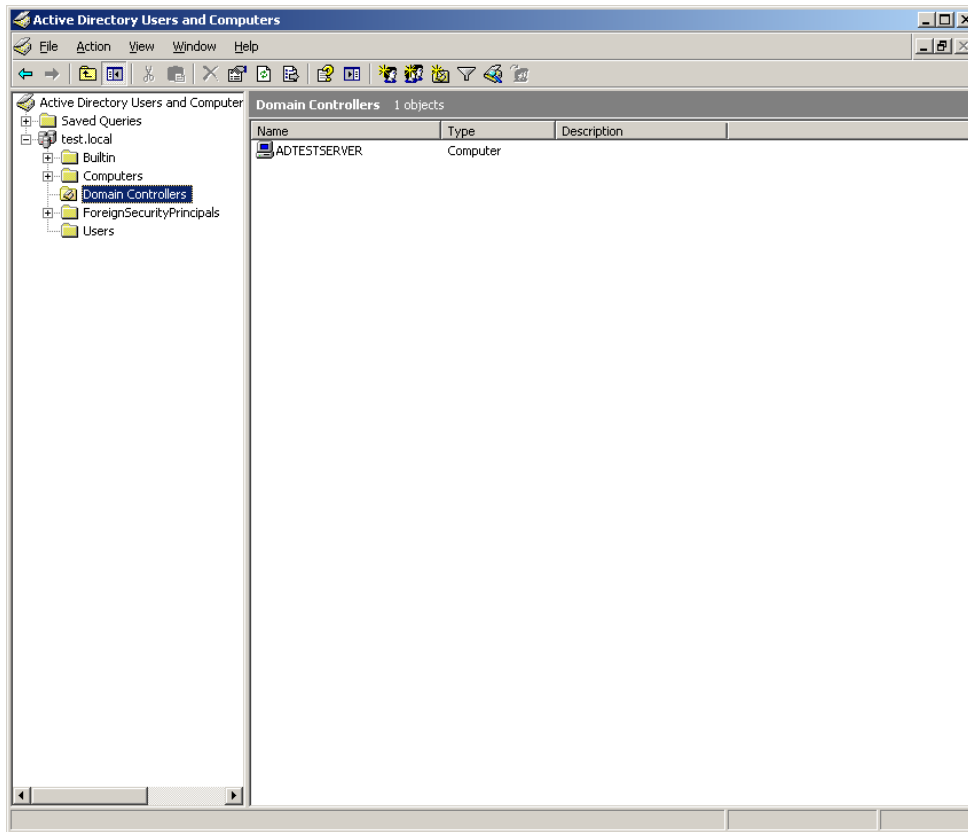
The Active Directory Administrative Template file is available for download at no charge from the following location: [www.hp.com/go/upd](http://www.hp.com/go/upd)

## Appendix A

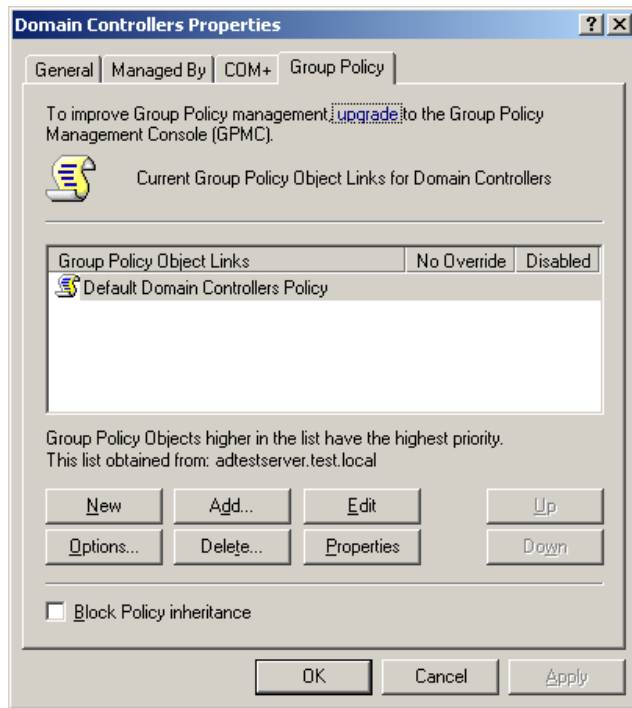
### Adding UPD AD admin Template to Windows 2000 Ad environment

ADS template instructions for systems that do not have the Microsoft Group Policy Management Console (Windows Server 2000).

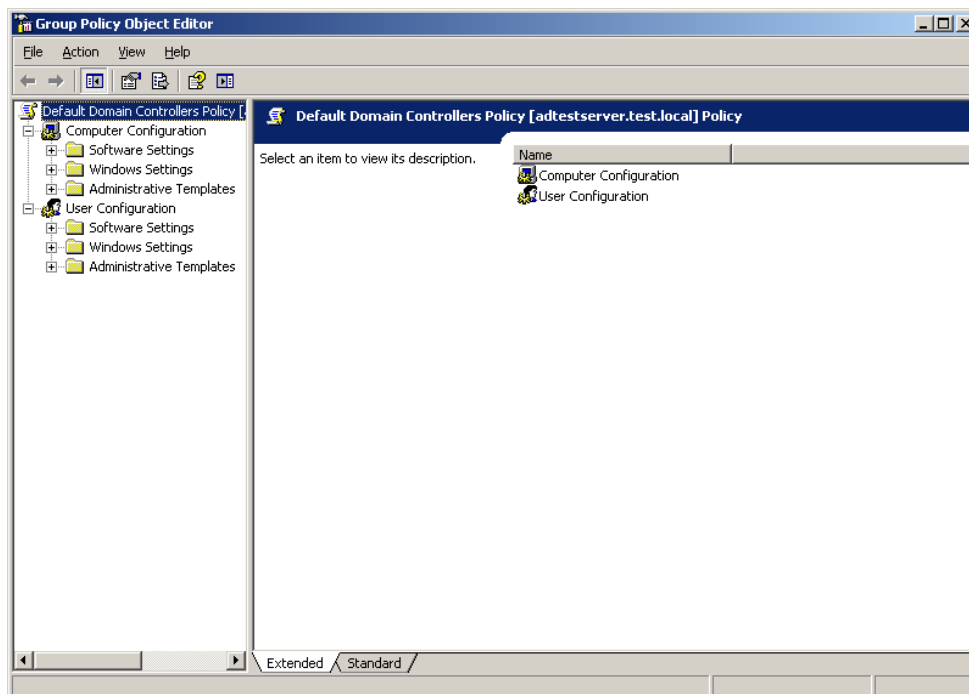
Start->Programs->Administrative Tools -> Active directory Users and Computers



Right click Domain Controllers -> Properties



Select Default Domain Controllers Policy  
click New to add a new Group Policy Object, or Edit to change an existing group policy object.



At this point you are now running the Microsoft Group Policy Object Editor. Please Refer to the document, *ADS instructions with GPMC.rtf* Group Policy Object Editor section for further instructions.



## Appendix B Verification and Troubleshooting

Use this section to verify that the users are getting the UPD policies correctly and as a guide to see where the settings are applied.

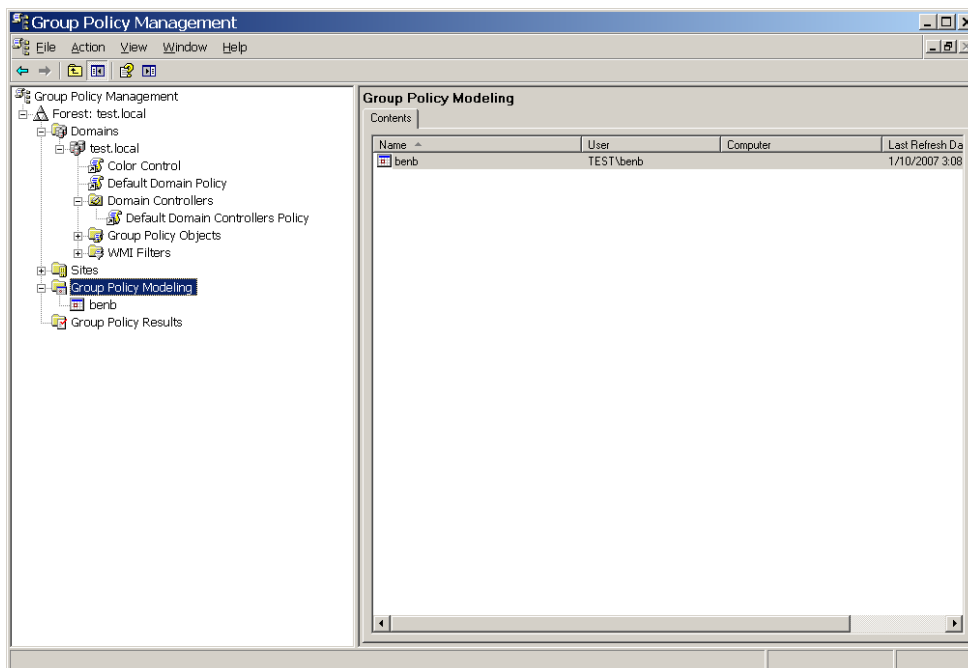
### Functional test.

Refer to MPA Administration Guide for descriptions of the settings.

Use the group Policy Modeling tool to run simulations on specific users or groups and specific machines. Note that the GPMC is a Microsoft supplied tool, is not available on Windows Server 2000, and is an optional component on later server versions that can be downloaded from the Microsoft Web Site.

Run the modeling wizard to verify your settings.

Right click Group Policy Modeling



Select and Click Group Policy Modeling Wizard

**Group Policy Modeling Wizard**

**Domain Controller Selection**  
 You must specify a domain controller to use for performing the simulation.

The simulation performed by Group Policy Modeling must be processed on a domain controller running Windows Server 2003 or later.

Show domain controllers in this domain:

test.local

Process the simulation on this domain controller:

Any available domain controller running Windows Server 2003 or later  
 This domain controller:

| Name                    | Site               |
|-------------------------|--------------------|
| adtestserver.test.local | Default-First-Site |

< Back   Next >   Cancel

Enter in the user that you want to model. Make sure you also check the box at the bottom that says "Skip to the final page..." or you will see a lot of weird questions.

**Group Policy Modeling Wizard**

**User and Computer Selection**  
 You can view simulated policy settings for a selected user (or a container with user information) and computer (or a container with computer information).

Example container name: CN=Users,DC=test,DC=local  
 Example user or computer: TEST\Administrator

Simulate policy settings for the following:

User information

Container:  Browse...  
 User: TEST\benb Browse...

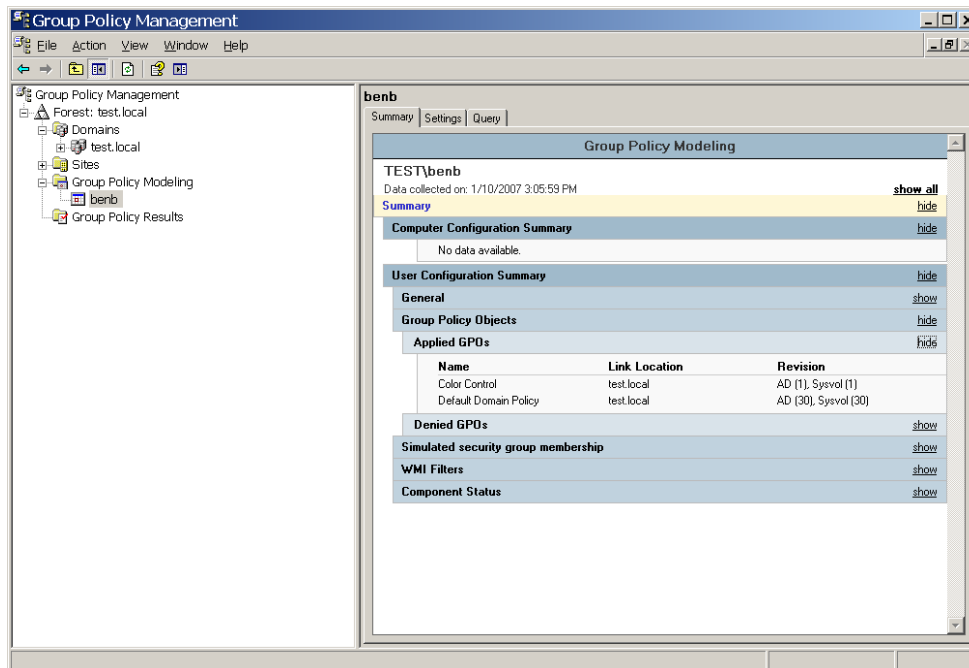
Computer information

Container:  Browse...  
 Computer:  Browse...

Skip to the final page of this wizard without collecting additional data

< Back   Next >   Cancel

Here is the result.



## Registry population

The next test is to verify that the settings in the group policy object have been populated into the registry of the client computer.

Log on as a member of the domain. Verify that the current user is logged into the domain.

Verify that the registry settings agree with what has been entered in the template, and that the registry keys and values are correct and what the UPD expects.

Note: Active Directory does not refresh settings immediately after you make a change to the Group Policy object. To refresh the settings on the client you must log out and then log back in, or you can use the gpupdate utility with the /Force option run from a command window to force Active Directory to update the settings.

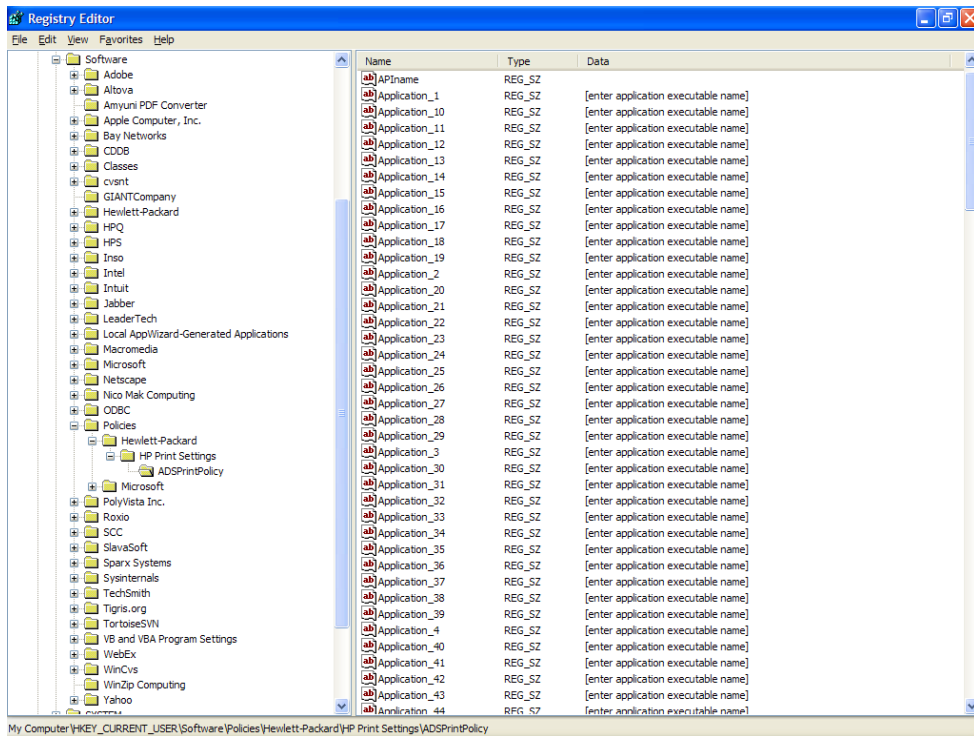
Example: `c:/> gpupdate /Force`

## Final test

Install the correct UPD version (4.0) and verify that the screens and final print result reflect the policy settings entered in the Group Policy Editor (gpedit.msc).

Run regedit.exe and verify that the registry has been populated correctly

Path is HKCU/Software/Policies/Hewlett-Packard/HP Print Settings/ADSPrintPolicy



Use the Scroll bar to view all of the registry settings within the Policies window.

### Summary:

With the introduction of the HP UPD AD Administrative template, you now have a choice on how you will implement and configure the UPD Policy settings. Use the AD Administrative template file when your enterprise environment requires user and group level UPD configuration settings which might be based on how the users are currently configured in your Active Directory.

Use the Managed Printing Administrator software when a fewer number of policy variations are necessary or when a smaller number of users actually need their UPD behavior modified.

Please familiarize yourself with both UPD policy creation tools and decide the best approach based on your individual needs and objectives. Either solution you choose are available for download at no charge from the following links: <http://www.hp.com/go/upd> or <http://www.hp.com/go/mpa>

Hewlett-Packard  
Imaging and Printing  
Technical Marketing