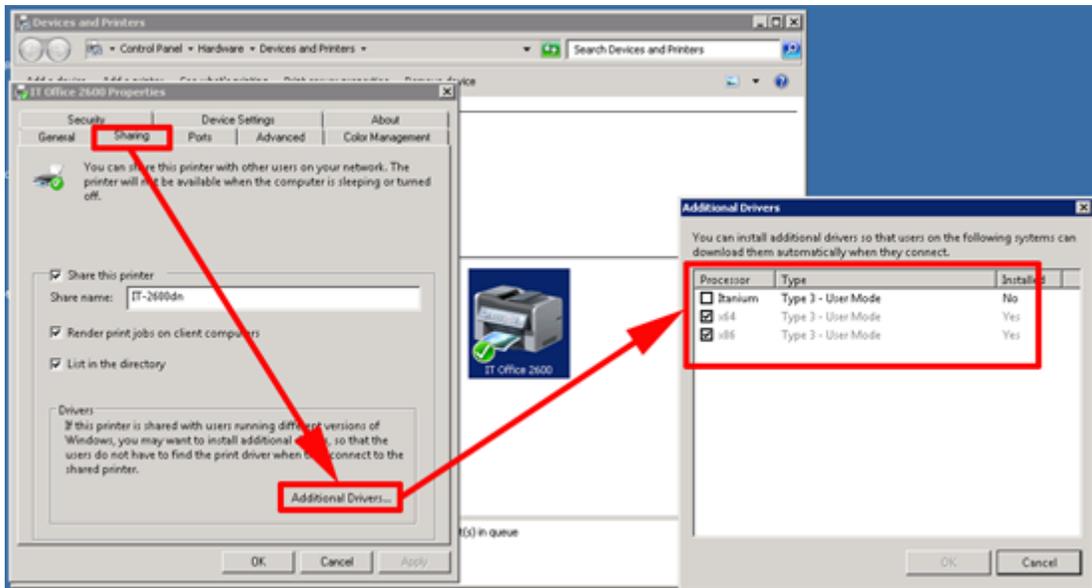
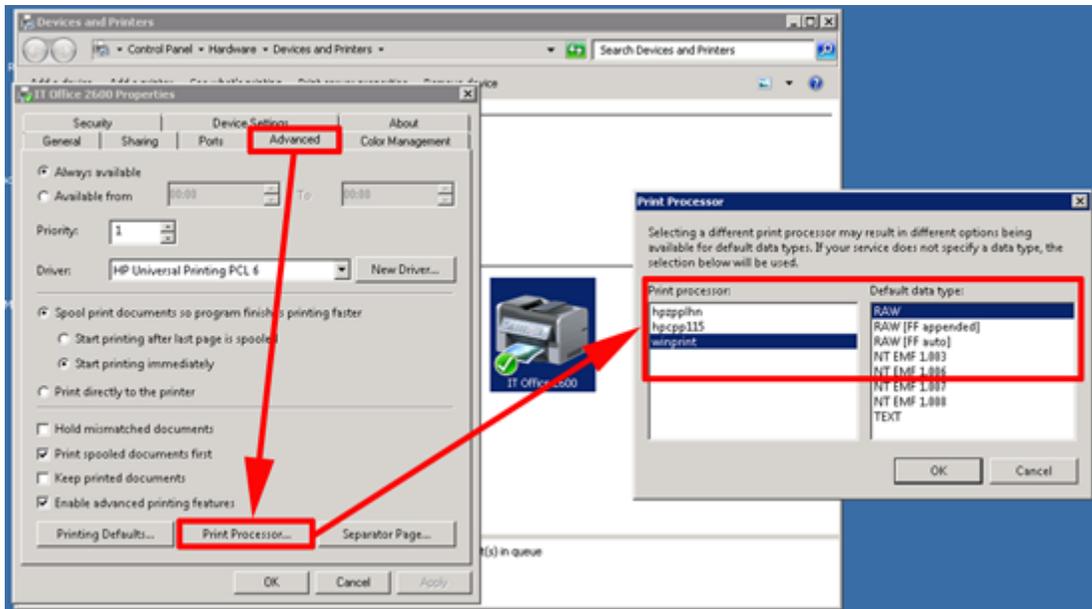


Deploy a Printer using Group Policy preferences

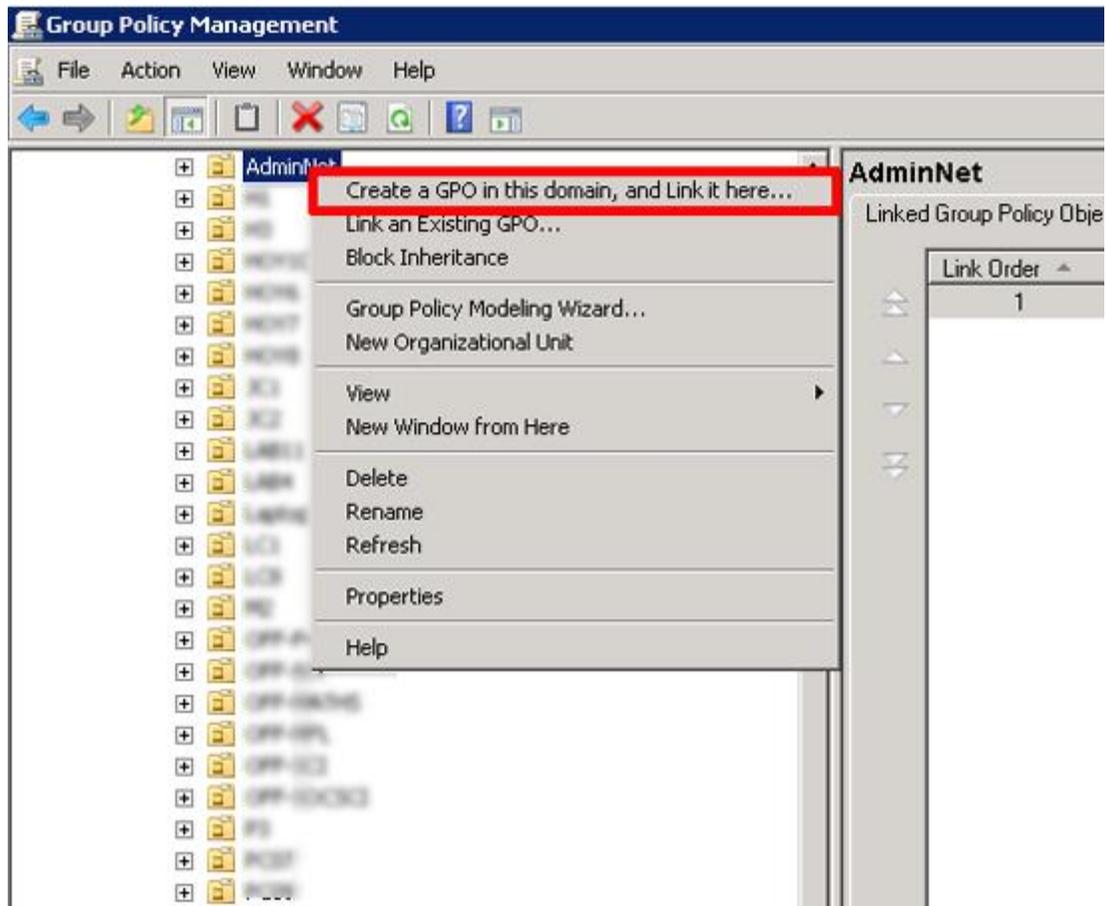
First thing to do is install the printer that needs deploying on a print server. Make sure if your clients are **NOT** x64 bit that you also add the x86 driver



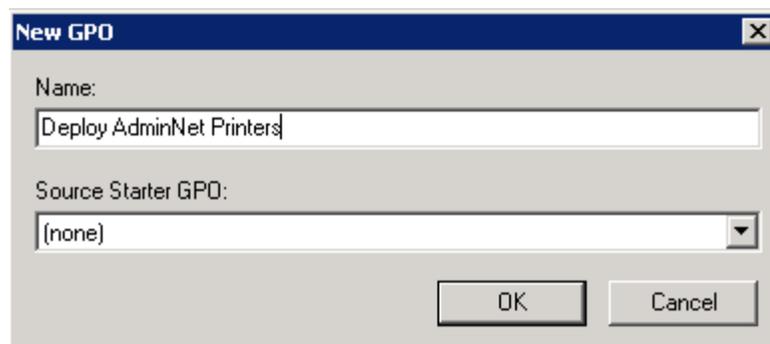
2. The following is a "Gotcha" (especially on HP printers), on the Printer Properties page, General tab > Select "Print Processor" > Ensure it's set to winprint and RAW.



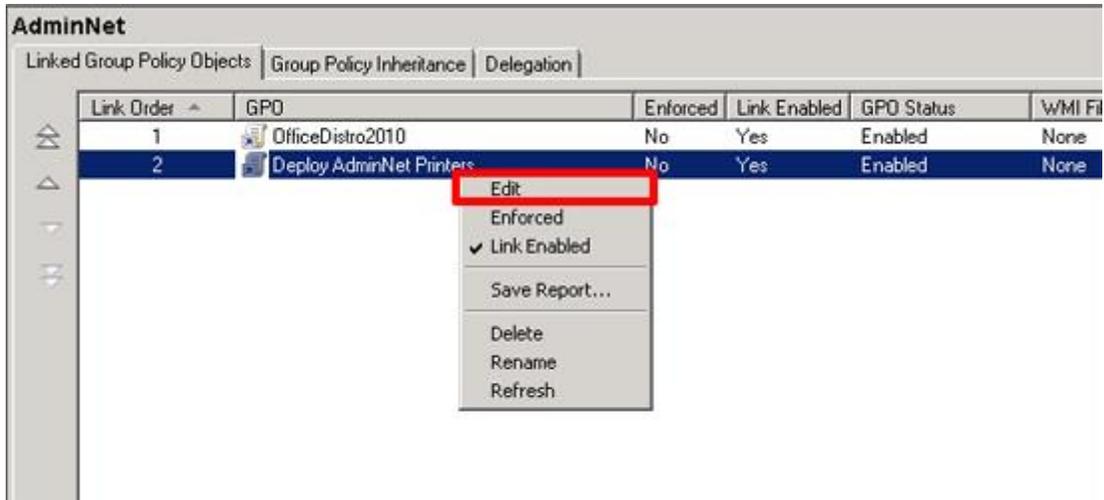
3. On a domain controller, Start > administrative tools > Group Policy Editor > Either edit an existing policy or create a new one (**Remember** its a computer policy you need to link it to something with computers in it, if you link it to a users OU nothing will happen).



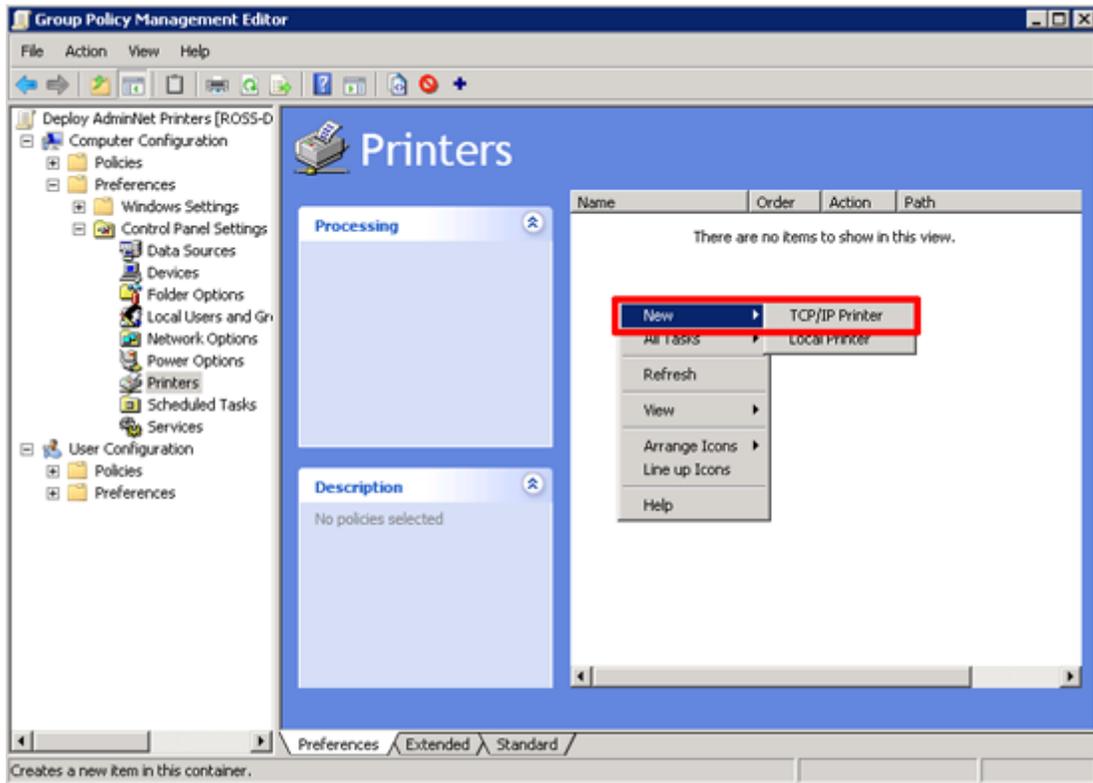
4. Give the policy a sensible name.



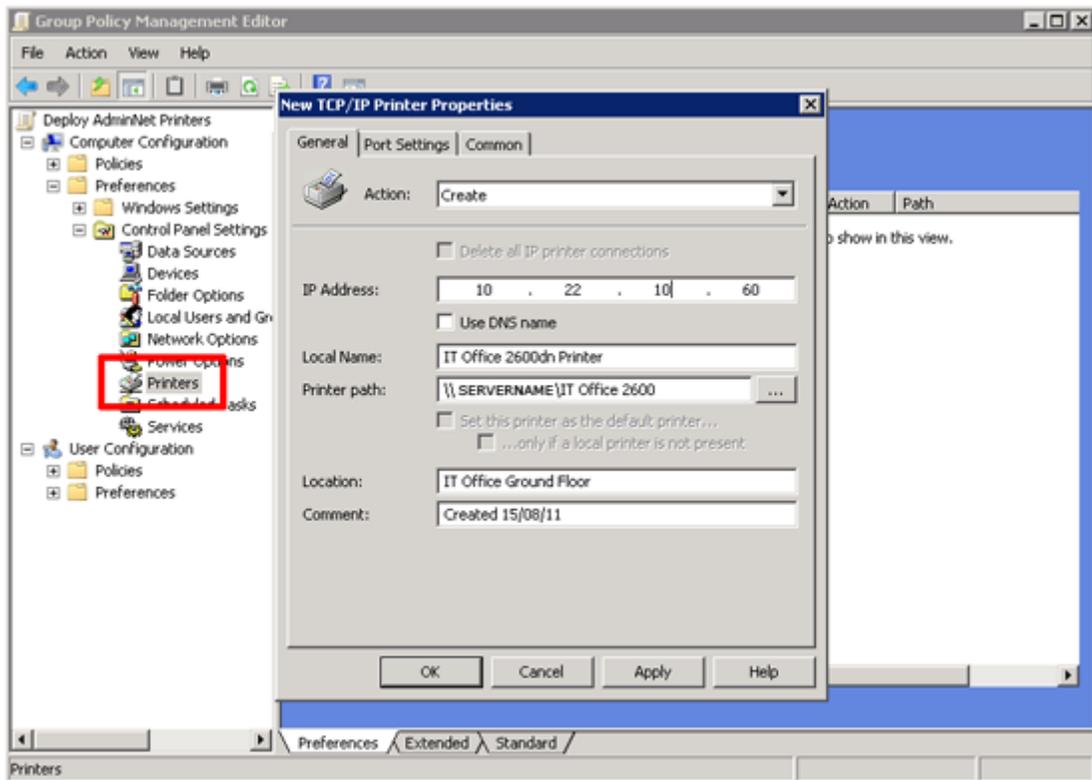
5. Edit the policy you have just created.



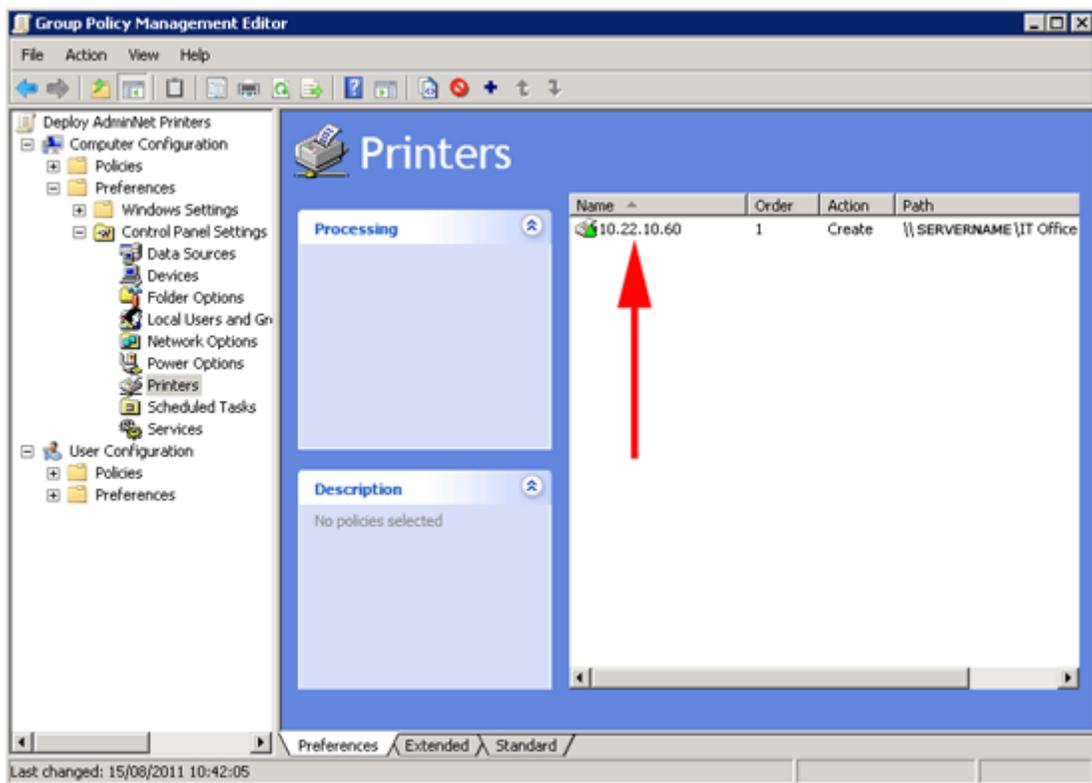
6. Navigate to > Computer Configuration > Preferences > Control Panel Settings > Printers > In the right hand window, right click > New > [TCP/IP Printer](#).



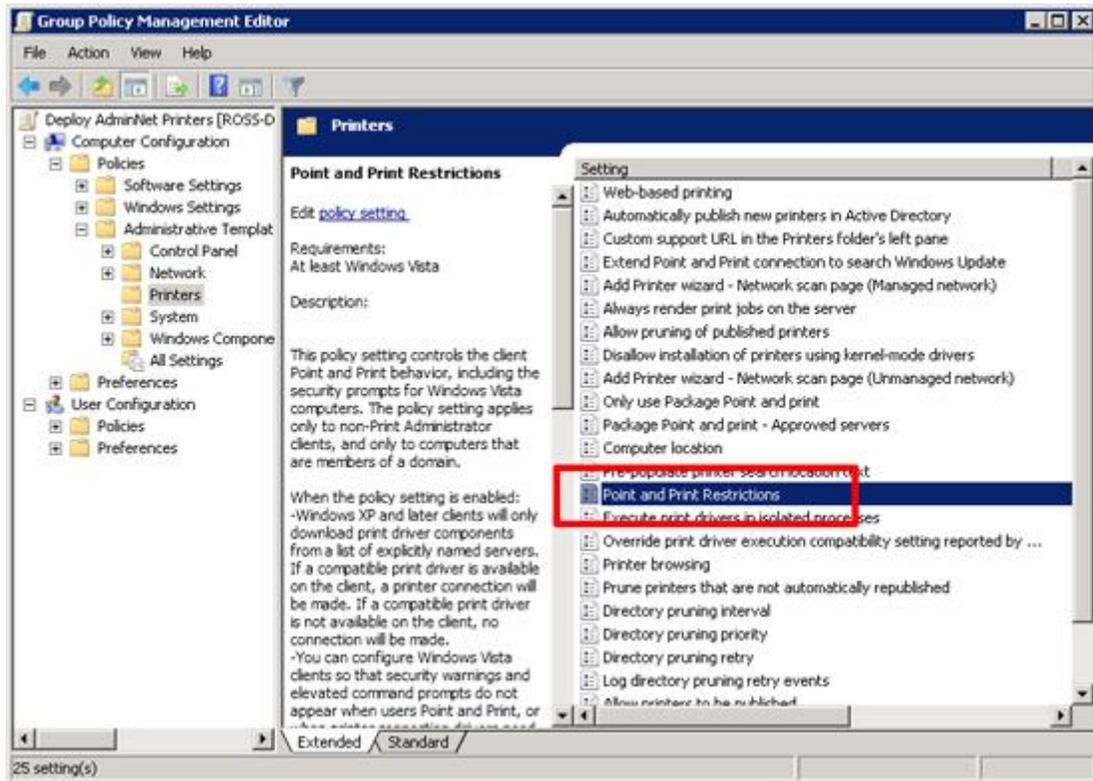
7. Select Create > I prefer to use the IP address of the printer but you can use the DNS name if you wish > The Local Name is what the client will see > Enter the Path to the printer (In [UNC](#) format) > You can also enter a location and comment if you wish > Apply > OK.



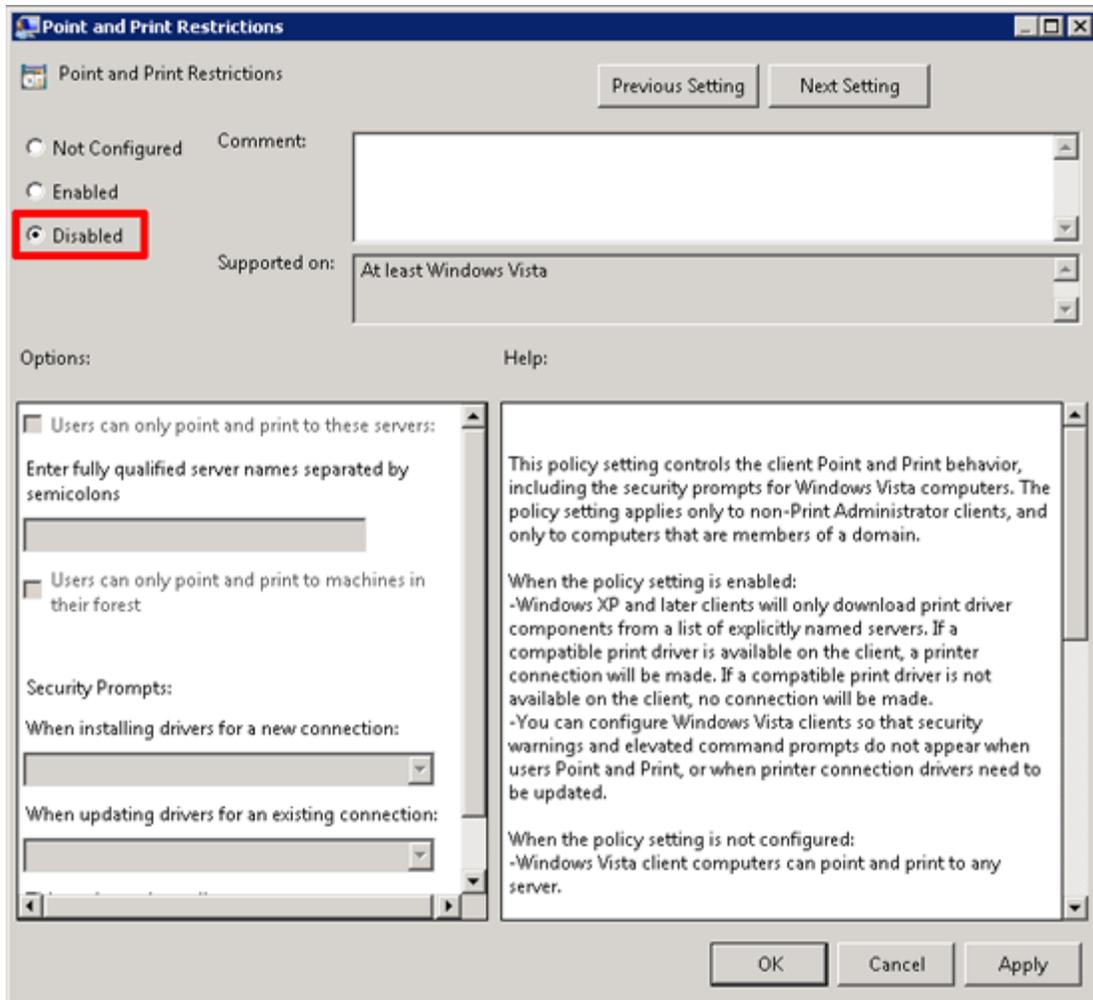
8. All being well you should see the printer listed.



9. Now for another "Gotcha" in the same policy navigate to > Computer Configuration > Policies > Administrative Templates > Printers > Locate the "Point and Print Restrictions" policy.



10. Change the settings for this policy so that it is disabled.



12. Close the Policy editor, then either reboot the clients, wait a couple of hours, or manually run "gpupdate /force" on them.

## Configuring Power options using Group policy Preferences

1. Open the **Group Policy Management Console** . Right-click the Group Policy object (GPO) that should contain the new preference item, and then click **Edit** .
2. In the console tree under **Computer Configuration** or **User Configuration** , expand the **Preferences** folder, and then expand the **Control Panel Settings** folder.
3. Right-click the **Power Options** node, point to **New** , and select **Power Plan (Windows Vista and later)** .
4. In the **New Power Plan (Windows Vista and later) Properties** dialog box, enter power options settings for Group Policy to configure. (For more information, see [Enable and Disable Settings in a Preference Item.](#))
5. Click the **Common** tab, configure [any options](#), and then type your comments in the **Description** box. (For more information, see [Configure Common Options.](#))
6. Click **OK** . The new preference item appears in the details pane.

## Actions

This type of preference item provides a choice of four actions: **Create** , **Replace** , **Update** , and **Delete** . The behavior of the preference item varies with the action selected and whether the power plan already exists.

- Create** Create a newly configured power plan. If a power plan with the same name as the Power Plan item exists, then the existing power plan is not changed.
- Delete** Remove a power plan with the same name as the Power Plan preference item. The extension performs no action if the power plan does not exist. Built-in power plans cannot be deleted.
- Replace** Delete and re-create the named power plan. The net result of the **Replace** action overwrites all existing settings associated with the power plan. If the power plan does not exist, then the **Replace** action creates a newly configured power plan. Built-in power plans cannot be replaced.
- Update** Modify a power plan. The action differs from **Replace** because it updates the settings that are defined within the preference item. All other settings remain as they were previously configured. If the power plan does not exist, then the **Update** action creates a new power plan.

## Additional considerations

- If a user Power Plan item processes after a computer Power Plan item, user settings replace the active settings, which may have been made active previously by a computer or user Power Plan item.
- The local administrator and Power Users administrative group can manually change their power settings by using Control Panel; other users cannot. Regardless, the settings configured for users become active when they log on and remain so even after they log off.
- Settings that are applied to the computer become active when the computer is started without a logged-on user. However, Power Plan preference items, which support Group Policy background updates, can reset power settings when computer policy is applied without a logged-on user.
- You can use item-level targeting to change the scope of preference items.
- Preference items are available only in domain-based GPOs.

## Configuring common options

Common options include:

- [Stop processing items in this extension if an error occurs on this item](#)
- [Run in logged-on user's security context \(user policy option\)](#)
- [Remove this item when it is no longer applied](#)
- [Apply once and do not reapply](#)
- [Item-level targeting](#)

### *Stop processing items in this extension if an error occurs on this item*

Each preference extension can contain one or more preference items.

- By default, a failing preference item does not prevent other preference items in the same extension from processing.
- If the **Stop processing items in this extension if an error occurs on this item** option is selected, a failing preference item prevents remaining preference items within the extension from processing. This change in behavior is limited to the hosting Group Policy object (GPO) and does not extend to other GPOs.

#### **Important**

Preference extensions start processing preference items from the bottom of the list and work their way to the top. Preference items successfully applied prior to the failing preference item are applied. The preference extension only stops processing preference items that follow the failing preference item.

### *Run in logged-on user's security context (user policy option)*

There are two security contexts in which Group Policy applies user preferences: the SYSTEM account and the logged-on user.

- By default, Group Policy processes user preferences using the security context of the SYSTEM account. In this security context, the preference extension is limited to environment variables and system resources available only to the computer.
- If the **Run in logged-on user's security context** option is selected, it changes the security context under which the preference item is processed. The preference extension processes preference items in the security context of the logged-on user. This allows the preference extension to access resources as the user rather than the computer. This can be especially important when using drive maps or other preferences in which the computer may not have permissions to resources or when using environment variables. The value of many environment variables differs when evaluated in a security context other than the logged-on user.

### *Remove this item when it is no longer applied*

Group Policy applies policy settings and preference items to users and computers. You determine which users and computers receive these items by linking one or more Group Policy objects (GPOs) to Active Directory sites, domains, or organizational units. User and computer objects that reside in these containers receive policy settings and preference items defined in the linked GPOs because they are within the scope of the GPO.

- Unlike policy settings, by default preference items are not removed when the hosting GPO becomes out of scope for the user or computer.
- If the **Remove this item when it is no longer applied** option is selected, it changes this behavior. After selecting this option, the preference extension determines if the preference item should not apply to targeted users or computers (out of scope). If the preference extension determines the preference item is out of scope, it removes the settings associated with the preference item.

#### **Important**

Selecting this option changes the action to **Replace** . During Group Policy application, the preference extension recreates (deletes and creates) the results of the preference item. When the preference item is out of scope for the user or computer, the results of the preference item are deleted, but not created. Preference items can become out of scope by using item-level targeting or by higher-level Group Policy filters such as WMI and security group filters.

#### **Note**

The **Remove this item when it is no longer applied** option is not available when the preference item action is set to **Delete** .

### *Apply once and do not reapply*

Preference items are applied when Group Policy refreshes.

- By default, the results of preference items are rewritten each time Group Policy refreshes. This ensures that the results of the preference items are consistent with what the administrator designated in the Group Policy object.
- If the **Apply once and do not reapply** option is selected, it changes this behavior, so the preference extension applies the results of the preference item to the user or computer only once. This option is useful when you do not want the results of a preference item to reapply.

## *Item-level targeting*

Group Policy provides filters to control which policy settings and preference items apply to users and computers. Preferences provide an additional layer of filtering called targeting. Item-level targeting allows you to control if a preference item applies to a group of users or computers.

## **Registry Extension**

5 out of 9 rated this helpful - [Rate this topic](#)

Applies To: Windows 8, Windows Server 2008 R2, Windows Server 2012

Group Policy includes the Registry preference extension. For computers or users, this extension allows you to:

- Copy multiple registry settings from a computer and apply those settings to other computers.
- Create, replace, or delete an individual registry value.
- Create an empty key, delete a key, or delete all values and subkeys in a key.
- Create collections (folders) to organize Registry preference items in the Group Policy Management Console, and so you can apply the same targeting to multiple Registry items.
- Create collections in the Group Policy Management Console that mirror the structure of keys in the registry on a selected computer.

## **Getting started**

You can create and configure Registry preference items for any domain-based Group Policy object (GPO). You configure the settings by editing a GPO using the Group Policy Management Console. When editing a GPO, you can find this preference extension at the following location:

### **Computer Configuration or User Configuration**

└ **Preferences**

└ **Windows Settings**

└ **Registry**

### *To create multiple Registry preference items*

1. Open the **Group Policy Management Console** . Right-click the Group Policy object (GPO) that should contain the new preference item, and then click **Edit** .

2. In the console tree under **Computer Configuration** or **User Configuration** , expand the **Preferences** folder, and then expand the **Windows Settings** folder.
3. Right-click the **Registry** node, point to **New** , and select **Registry Wizard** .
4. Select the computer on which the desired registry settings exist (or on which similar settings you will modify exist), then click **Next** .
5. Browse to and select the check box for each key or value from which you want to create a Registry preference item. Select the check box for a key only if you want to create a Registry item for the key rather than for a value within the key.
6. Click **Finish** . The settings that you selected appear as preference items in the Registry Wizard Values collection.
7. Right-click the **Registry Wizard Values** collection in the console tree, click **Rename** , and type a descriptive name for the collection.

## Creating a Registry item

### *To create a new Registry preference item*

1. Open the **Group Policy Management Console** . Right-click the Group Policy object (GPO) that should contain the new preference item, and then click **Edit** .
2. In the console tree under **Computer Configuration** or **User Configuration** , expand the **Preferences** folder, and then expand the **Windows Settings** folder.
3. Right-click the **Registry** node, point to **New** , and select **Registry Item** .
4. In the **New Registry Item** dialog box, select an **Action** for Group Policy to perform. (For more information, see "Actions" in this topic.)
5. Enter registry settings for Group Policy to configure or remove. (For more information, see "Registry settings" in this topic.)
6. Click the **Common** tab, configure [any options](#), and then type your comments in the **Description** box. (For more information, see [Configure Common Options](#).)
7. Click **OK** . The new preference item appears in the details pane.

## Actions

This type of preference item provides a choice of four actions: **Create** , **Replace** , **Update** , and **Delete** . The behavior of the preference item varies with the action selected and whether the registry key or value already exists.

**Create** Create a new registry value or key for computers or users.

**Delete** Remove a registry value or a registry key and all of its values and subkeys for computers or users.

**Replace** Delete and recreate a registry value or key for computers or users. If the target is a registry value, the net result of the **Replace** action is to overwrite all existing settings associated with the registry value. If the target is a registry key, the net result is to delete all values and subkeys in the key, leaving only a default value name with no data. If the registry value or key does not exist, then the **Replace** action creates a new registry value or key.

**Update** Modify settings of an existing registry value or key for computers or users. This action differs from **Replace** in that it only updates settings defined within the preference item. All other settings remain as configured in the registry value or key. If the registry value or key does not exist, then the **Update** action creates a new registry value or key.

## Registry settings

You can click the **Browse** button next to the **Key Path** field to navigate to the registry value or key to be configured.

If the registry value or key that you want to configure exists on this computer, click ... to browse to the value or key. The remaining fields in the **Properties** dialog box are populated based on your selection. You can edit the values in those fields.

...

To select a key without specifying a value (or if the value does not yet exist), click the key in the tree at the top of the window, and then click **Select**.

If you did not browse to a value or key, select the hive for the registry key.

- HKEY\_CLASSES\_ROOT is an alias for HKEY\_LOCAL\_MACHINE\Software\Classes.
- HKEY\_CURRENT\_USER is an alias for HKEY\_USERS\*logged-on user's hive*. HKEY\_USERS\.Default is used when HKEY\_CURRENT\_USER is configured under computer configuration.

## Hive

- HKEY\_LOCAL\_MACHINE is the default option for computer policy. These settings affect all users of the computer.
- HKEY\_USERS is the default option for user policy. These settings affect individual users.
- HKEY\_CURRENT\_CONFIG is an alias for HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Hardware Profiles\Current.

If you did not browse to a value or key, type the key path. Do not include the hive or a leading or trailing slash.

## Key Path

This field accepts preference processing variables. Press F3 to display a list of variables from which you can select.

To configure a value, either select the **Default** checkbox to configure the default value for the key or type the name of the value to configure. To configure only a key, leave this field blank.

## Value name

This field accepts preference processing variables. Press F3 to display a list of variables from which you can select.

## Value type

To configure a value, select the value type. To configure only a key, leave this field

blank.

This option is available only if the action selected is **Create** , **Replace** , or **Update** and if you have entered a **Value name** .

To configure value data, type the data for the registry value. To configure only a key, leave this field blank.

**Value data** This field accepts preference processing variables. Press F3 to display a list of variables from which you can select.

This option is available only if the action selected is **Create** , **Replace** , or **Update** and if you have selected a **Value type** .

## Configure a Folder Item

0 out of 2 rated this helpful - [Rate this topic](#)

Applies To: Windows 8, Windows Server 2008 R2, Windows Server 2012

Folder preference items allow you to create, update, replace, and delete folders and their contents. (To configure individual files rather than folders, see [Files Extension](#).) Before you create a Folder preference item, you should review the behavior of each type of action possible with this extension.

### Creating a Folder item

#### *To create a new Folder preference item*

1. Open the **Group Policy Management Console** . Right-click the Group Policy object (GPO) that should contain the new preference item, and then click **Edit** .
2. In the console tree under **Computer Configuration** or **User Configuration** , expand the **Preferences** folder, and then expand the **Windows Settings** folder.
3. Right-click the **Folders** node, point to **New** , and select **Folder** .
4. In the **New Folder Properties** dialog box, select an **Action** for Group Policy to perform. (For more information, see "Actions" in this topic.)
5. Enter folder settings for Group Policy to configure or remove. (For more information, see "Folder settings" in this topic.)
6. Click the **Common** tab, configure [any options](#), and then type your comments in the **Description** box. (For more information, see [Configure Common Options](#).)
7. Click **OK** . The new preference item appears in the details pane.

### Actions

This type of preference item provides a choice of four actions: **Create** , **Replace** , **Update** , and **Delete** . The behavior of the preference item varies with the action selected and whether the folder already exists.

**Create** Create a new folder for computers or users.

**Delete** Remove a folder for computers or users.

**Replace** Delete and recreate a folder for computers or users. The net result of the **Replace** action is to delete the contents of an existing folder and to overwrite all existing settings associated with the folder. If the folder does not exist, then the **Replace** action creates a new folder.

**Update** Modify an existing folder for computers or users. This action differs from **Replace** in that it only updates settings defined within the preference item. All other settings remain as configured on the folder. If the folder does not exist, then the **Update** action creates a new folder.

## Folder settings

**Path** Type a path for the folder from the perspective of the client. Do not include quotes or a trailing slash. This field can contain variables.

To configure file system attributes for the folder, select the appropriate check boxes.

### Attributes

These options are available only when the action selected is **Create** , **Replace** , or **Update** .

Select a combination of options to control which files and folders are deleted. If the **Replace** action is selected, the folder is recreated after these options have been processed unless deletion is prevented. The effect of these options varies depending on the combination of options selected. For more information, see "Additional considerations."

These options are available only when the action selected is **Replace** or **Delete** .

Available options include:

Options for **Delete** or **Replace** actions

- **Ignore errors for files/folders that cannot be deleted** : If this option is cleared, an error is returned if the Folder item attempts to delete a folder that is not empty, a file that is open, a file or folder for which the user does not have permission, or any other file or folder that cannot be deleted. If selected, this option suppresses any error messages that occur because files or folders cannot be deleted.
- **Allow deletion of read-only files/folders** : If this option is cleared, the Folder item is prevented from deleting read-only files and folders. If selected, this option clears the read-only attribute of files and folders that this Folder item attempts to delete.
- **Delete all files in the folder(s)** : If this option is cleared, the Folder item cannot delete files within folders. If selected, this option deletes all files within

this folder that are allowed to be deleted. If **Recursively delete all subfolders** is selected as well, then all files that are allowed to be deleted within all subfolders are also deleted.

- **Recursively delete all subfolders (if emptied)** : If this option is cleared, the Folder item is prevented from deleting subfolders within the folder. If this option is selected, the lowest level of subfolders is deleted if they are empty, repeating for each parent folder until reaching the folder specified in the **Path** field. Whether subfolders are empty is evaluated after the option to **Delete all files in the folder(s)** has been processed.
- **Delete this folder (if emptied)** : If this option is cleared, the Folder item is prevented from deleting the folder specified in the **Path** field. If this option is selected, the folder specified in the **Path** field is deleted if it is empty. Whether this folder is empty is evaluated after the options to **Delete all files in the folder(s)** and **Recursively delete all subfolders** have been processed.

### *Additional considerations*

- Common combinations of options for **Delete** or **Replace** actions include:
  - Delete the folder only if it is empty: Select **Delete this folder** and **Allow deletion of read-only files/folders** . To prevent an error if the folder contains files and cannot be deleted, select **Ignore errors** .
  - Delete the folder and all files and subfolders within: Select **Delete this folder** , **Recursively delete all subfolders** , **Delete all files in the folder(s)** , and **Allow deletion of read-only files/folders** .
  - Delete all empty subfolders within the folder: Select **Recursively delete all subfolders** and **Allow deletion of read-only files/folders** . To prevent an error if the folder contains files and cannot be deleted, select **Ignore errors** .
  - Delete all files within the folder, but not subfolders or files within subfolders: Select **Delete all files in the folder(s)** and **Allow deletion of read-only files/folders** .
  - Delete all files and subfolders within the folder: Select **Recursively delete all subfolders** , **Delete all files in the folder(s)** , and **Allow deletion of read-only files/folders** .
- You can use item-level targeting to change the scope of preference items.

## **Shortcuts Extension**

1 out of 6 rated this helpful - [Rate this topic](#)

Applies To: Windows 8, Windows Server 2008 R2, Windows Server 2012

Group Policy includes the Shortcuts preference extension. For computers or users, this extension allows you to:

- Create a shortcut.
- Modify the properties of a shortcut.
- Delete a shortcut.

## Getting started

You can create and configure Shortcut preference items for any domain-based Group Policy object (GPO). You configure the settings by editing a GPO using the Group Policy Management Console. When editing a GPO, you can find this preference extension at the following location:

### Computer Configuration or User Configuration

#### └ Preferences

#### └ Windows Settings

#### └ Shortcuts

## Creating a Shortcut item

### *To create a new Shortcut preference item*

1. Open the **Group Policy Management Console** . Right-click the Group Policy object (GPO) that should contain the new preference item, and then click **Edit** .
2. In the console tree under **Computer Configuration** or **User Configuration** , expand the **Preferences** folder, and then expand the **Windows Settings** folder.
3. Right-click the **Shortcuts** node, point to **New** , and select **Shortcut** .
4. In the **New Shortcut Properties** dialog box, select an **Action** for Group Policy to perform. (For more information, see "Actions" in this topic.)
5. Enter shortcut settings for Group Policy to configure or remove. (For more information, see "Shortcut settings" in this topic.)
6. Click the **Common** tab, configure [any options](#), and then type your comments in the **Description** box. (For more information, see [Configure Common Options](#).)
7. Click **OK** . The new preference item appears in the details pane.

## Actions

This type of preference item provides a choice of four actions: **Create** , **Replace** , **Update** , and **Delete** . The behavior of the preference item varies with the action selected and whether the shortcut already exists.

**Create** Create a new shortcut for computers or users.

**Delete** Remove a shortcut for computers or users.

Delete and recreate a shortcut for computers or users. The net result of the **Replace**

**Replace** action is to overwrite the existing shortcut. If the shortcut does not exist, then the **Replace** action creates a new shortcut.

**Update** Modify settings of an existing shortcut for computers or users. This action differs from **Replace** in that it only updates shortcut settings defined within the preference item. All other settings remain as configured in the shortcut. If the shortcut does not exist, then the **Update** action creates a new shortcut.

## Shortcut settings

**Name** Type a display name for the shortcut. If modifying or deleting a shortcut, the name entered must match the name of the existing shortcut.

Select the type of target to which the shortcut points. If modifying or deleting a shortcut, the target type selected must match that of the existing shortcut.

If the shortcut can be addressed:

- Target Type**
- Using a Windows path (such as a file, folder, drive, share, or computer), click **File System Object** .
  - Using a URL (such as a Web page, Web site, or FTP site), click **URL** .
  - As an object within the Windows shell (such as a printer, desktop or control panel item, file, folder, share, computer, or network resource), click **Shell Object** .

Select the location where the shortcut is to appear on the computers targeted by this preference item. Locations other than **All Users** are relative to the logged-on user. If modifying an existing shortcut, the location selected must match that of the existing shortcut. This field accepts preference processing variables. Press F3 to display a list of variables from which you can select.

**Location** To place the shortcut in a subfolder at the location, enter the subfolder path in the **Name** field followed by the display name. (For example, to place a shortcut with the display name **My Shortcut** in the MyCorp subfolder of Explorer Favorites, type **MyCorp\My Shortcut** for the **Name** and select **Explorer Favorites** for **Location** .)

If selecting **<Specify full path>** , type the full path followed by the display name in the **Name** field. (For example, to place a shortcut with the display name **My Shortcut** in the MyCorp subfolder of Program Files, type **%ProgramFilesDir%\MyCorp\My Shortcut** for the **Name** and select **<Specify**

**full path>** for **Location .**)

Enter a local path, UNC path, or drive letter to which the shortcut will lead. This field accepts preference processing variables. Press F3 to display a list of variables from which you can select.

**Target Path**

This option is available only if the **Target Type** selected is **File System Object** and the action is **Create , Replace , or Update .**

Enter a URL to which the shortcut will lead. This field accepts preference processing variables. Press F3 to display a list of variables from which you can select.

**Target URL**

This option is available only if the **Target Type** selected is **URL** and the action is **Create , Replace , or Update .**

Select the shell object (such as a printer, desktop or control panel item, file, folder, share, computer, or network resource) to which the shortcut will lead.

**Target Object**

This option is available only if the **Target Type** selected is **Shell Object** and the action is **Create , Replace , or Update .**

Type any arguments to be used when opening the target file or folder.

**Arguments**

This option is available only if the **Target Type** selected is **File System Object** and the action is **Create , Replace , or Update .**

To specify a working directory that contains files required by the target, type the path for the folder. Do not include quotes or a trailing slash. This field accepts preference processing variables. Press F3 to display a list of variables from which you can select.

**Start in**

This option is available only if the **Target Type** selected is **File System Object** and the action is **Create , Replace , or Update .**

To provide a keyboard shortcut for launching the shortcut, click the **Shortcut key** field and press the key combination. (To remove the keyboard shortcut, press

**Shortcut key** **DELETE** or **BACKSPACE .**)

This option is available only if the action is **Create , Replace , or Update .**

Select the size of the window in which to open the target of the shortcut.

**Run**

This option is available only if the **Target Type** selected is **File System Object** or **Shell Object** and the action is **Create , Replace , or Update .**

To display a tooltip when the mouse pointer pauses on the shortcut, type the text for the tooltip. This field accepts preference processing variables. Press F3 to display a list of variables from which you can select.

**Comment**

This option is available only if the **Target Type** selected is **File System Object** or **Shell Object** and the action is **Create , Replace , or Update .**

**Icon file path  
and Icon  
index**

To specify an icon for the shortcut other than the default for the type, browse to an icon file and select an icon. (You can also type the full path for an icon file, and then type an icon index.) Do not include quotes. The **Icon file path** field accepts preference processing variables. Press F3 to display a list of variables from which you can select.

These options are available only if the action is **Create** , **Replace** , or **Update** .

*Additional considerations*

- Because mapped drives exist only for users, if any path in the configuration for a shortcut includes a mapped drive, the Shortcut preference item must be under **User Configuration** , the drive letter must exist before the Shortcut item is processed, and **Run in logged-on user's security context** must be selected on the **Common** tab.
- By default, variables in the **Target path** are resolved by Group Policy before the shortcut is created or modified. To include the variable rather than its resolved value in the shortcut (so that the variable is resolved in the environment on the computers to which this Shortcut item is applied), use unresolved variable syntax, such as %<ProgramFiles>% in place of %ProgramFiles% .

Because unresolved variable syntax is resolved in the environment of computers to which the Shortcut item is applied, use only environment variables (rather than preference processing variables).

- User specific paths resolve to .default when applying a shortcut item to the computer.
- You can use item-level targeting to change the scope of preference items.
- Preference items are available only in domain-based GPOs.