

10 things Group Policy Preferences can do better than your current script!

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Overview

Let's be honest: some administrative tasks are a pain in the foot as they are either difficult to implement or require heavy scripting action. Some of them even require you to import some registry export files because there aren't Group Policy settings or ADM templates for them around.

To get around these issues, we can use Group Policy Preferences with 21 new Client Side Extensions that implement a heck of functionality we were missing until now. The prerequisites and requirements can be found here: <http://support.microsoft.com/kb/943729>. You basically need to download and install the Client Side Extensions on all target machines. Additionally, you need a management station with Server 2008 installed (member server is sufficient) or a Vista SP1 machine with RSAT installed. To be clear: there's no need to have your AD schema extended or a 2008 DC in place.

This article is (hopefully) about what Group Policy Preferences can do and how they can help you minimize overall scripting in your environment.

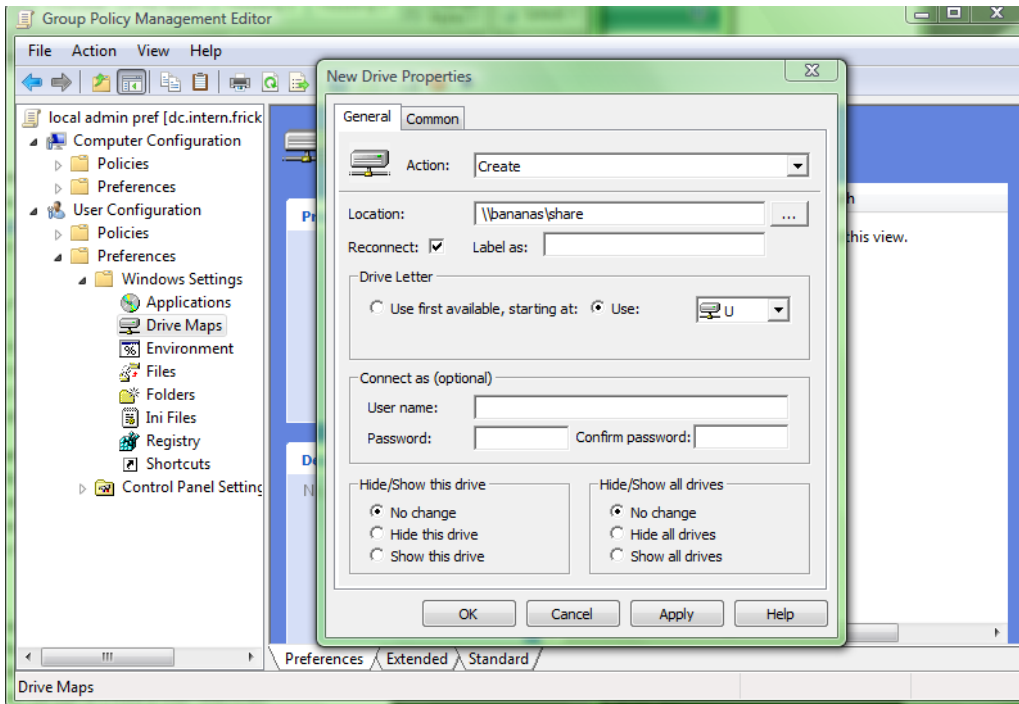
Drive Mappings

One of the things every administrator under us certainly created once in his career is drive mappings. Drive mappings help users place their documents on the same server with the same drive letter all the time. We usually map drive using scripts, like [\\bananas\important documents](#) and provide special drive letters to them so people can use them like their local drives. For a batch file, we could simply use

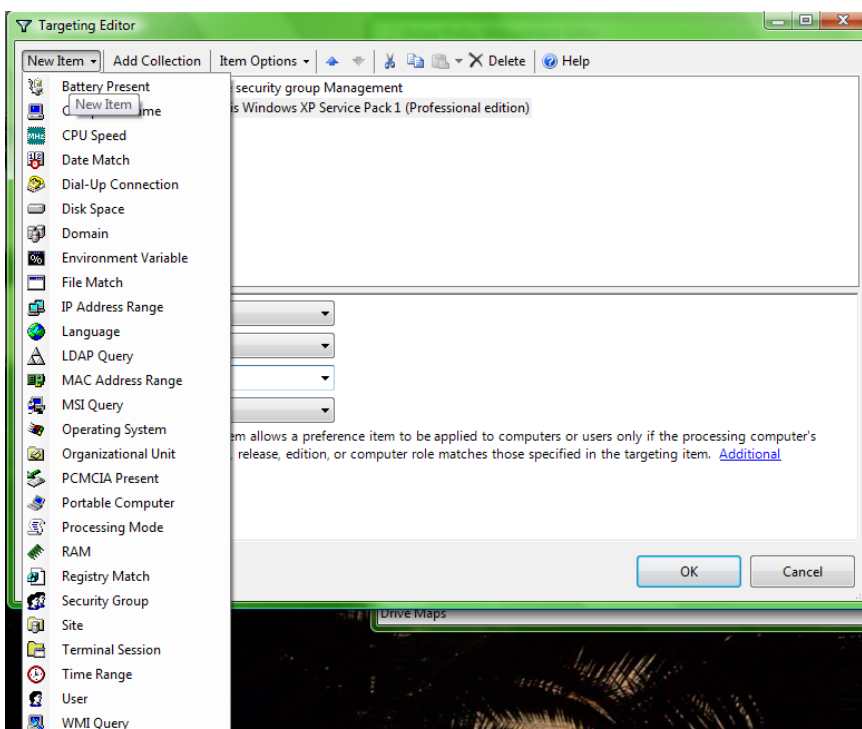
```
NET USE U: "\\bananas\important documents" /persistent:no
```

to map the bananas server share "important documents" to U:. That's pretty easy we can see – but what if we wanted to filter the sharing a little bit? What if we wanted to have a couple of shares connected and mapped based on certain criteria like the user's group membership in a AD security group or the machine's operating system? Scripting that wouldn't be that easy.

This is where Preferences can help. Under **User Configuration\Preferences\Windows Settings\Drive Maps** we can find the corresponding Preference settings. Selecting "New" from the context menu, we can add a new drive mapping. You'll notice that the UI to administer preferences is easy to understand. It sometimes is a 100% copy of the UI in Windows – it feels like you would configure some settings on the local machine. That's another thing why Preferences rock.

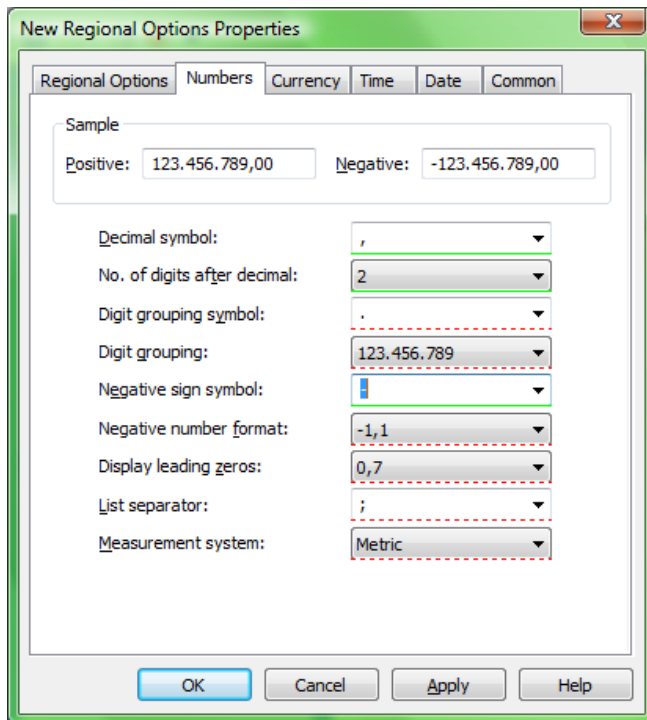


Creating a drive mapping is boring the same way it is using a script. It gets interesting as soon as we try to implement the filter criteria based on which we want the share mapped. Preferences can do this with item-level targeting. The tab “Common” has a checkbox labeled “item-level targeting” and a button you can push. That opens up a sort of formula editor we can use to create a filter. Machines that are in the scope of your Group Policy with this Preference will use that filter to evaluate whether the settings herein gets applied or not. We choose “New Item” and create a filter just like we wanted it: based on security group membership and operating system of the client.



Power options

Deploying power options with Group Policy isn't an easy thing to do. There are a few things you can do, but they're mostly not sufficient. So is the free tool "powercfg" you can use to script the machine to default to hibernation or sleep mode (see: <http://technet.microsoft.com/en-us/library/cc748940.aspx>). Again, we can use Preferences that come with a very common UI we all know: **Computer Configuration\Preferences\Control Panel Settings\Power Options** lets you create Power options and Power scheme preferences.



Notice that some settings have a green underline – that's a special feature of Group Policy Preferences which is described in the very last section "Green and red lines under my options?". For now it's just important to know that settings we want to deploy need to be underlined green.

Folder Options

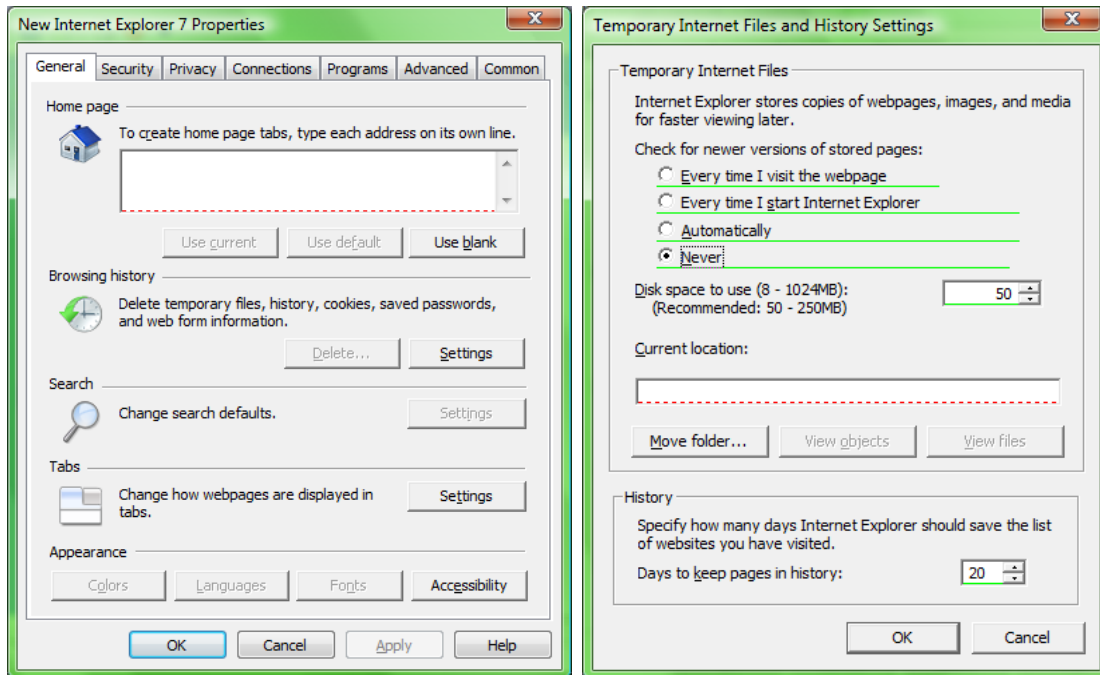
Making hidden folders visible? Making system files visible to users? Not as easy as you might think, if you're not going to roll out a new profile that to all users that has this configured. You certainly don't want to roll this out with a registry import script, do you? Another one for Preferences: **Computer configuration\Preferences\Control Panel Settings\Folder Options** gives you the chance to configure Windows XP and Windows Vista folder options with just the same UI you'd use to configure the local folder options on your machine! All settings, checkboxes and options are there. If you know the pain to deploy this, you'll love Preferences!

Internet Explorer Settings

Managing Internet Explorer is a little tricky. Not only the two modes "Internet Explorer Maintenance" and "Internet Explorer Preference" are difficult to understand, the application or non-application is a chapter of its own. Thinking of the underlying architecture, IE5 and IE6 settings are still managed

with some code from the IEAK 4 engine which has come into years now. Not a really good base to build on.

Group Policy Preferences can do it better: **User Configuration\Control Panel Settings\Internet Settings**.

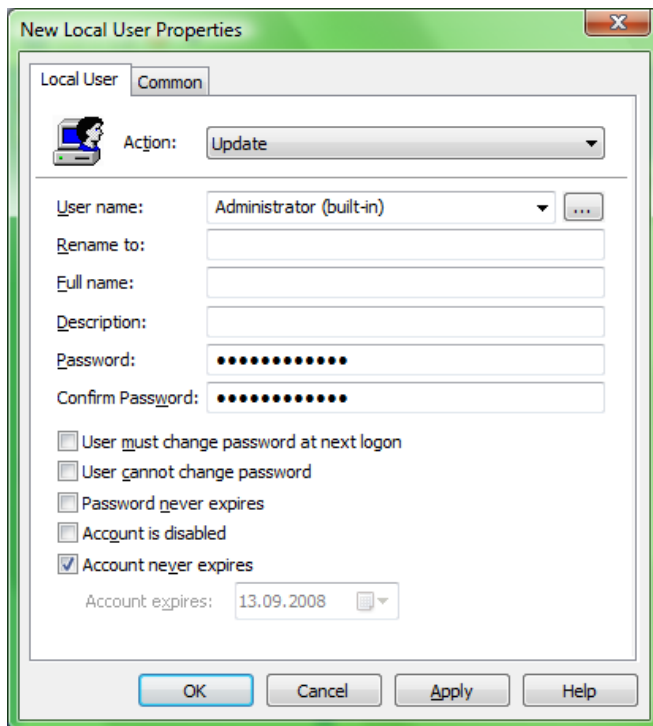


Note that the colored underlining again needs to be green in order to have settings successfully applied by clients. For more on that, see the last paragraph.

Setting local Administrator Passwords /Administering local users and groups

There are numerous ways to edit the local administrator account and set a new password but – how good are they? One could think the easiest way to set a new password for “Administrator” is creating a computer startup script and change it using “NET USER Administrator ...”. The downside here is that – with all scripting – they can be read by the Everyone principal or at least a authenticated users. Be careful with those scripts, as the password is provided in clear text there. You better use the Microsoft Script Encoder to “hide” the entire script from the user or use a tool that changes the local admin passwords from a central place by connection to each machine individually (like pspasswd: <http://technet.microsoft.com/en-us/sysinternals/bb897543.aspx>). Keep in mind that this requires that the machines are up and running when you run a tool like this.

In our Preference case, we can use them to manage the local Administrator password. Of course the password gets saved somehow on the SYSVOL share too, but is secured by a 256bit AES encryption – so people can’t just read the clear text. That brings security in there. In **Computer Configuration\Preferences\Control Panel Settings\local users and groups** we can do that. Choosing “New” and “local User” from the context menu lets us proceed.

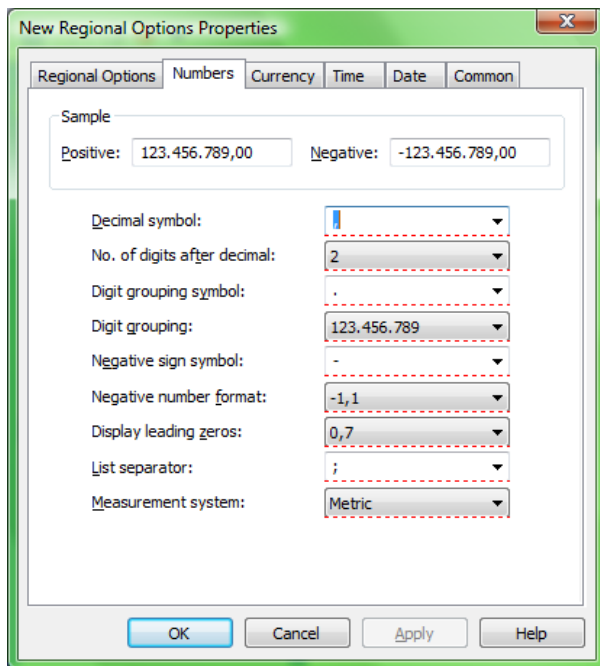


As shown in the picture, we can use the predefined “Administrator (built-in)” to accomplish our goal. We can provide the new password and adjust the check boxes at the bottom just as we wish. Only make sure you don’t hit the “Account is disabled” checkbox or “Change password at next logon” box – as these might bit you back ;-). Remember adjusting local services that might run with “Administrator” credentials on the boxes and might fail to start if the password is changed.

Regional Options

Another topic that, until now always involved the creation of custom ADM templates and the creation of scripting, is “regional options”. If you missed setting the regional options settings in your images or set it wrong, you may get into trouble as different countries have different formatting-characters or different date and time formatting.

User Configuration\Preferences\Control Panel Settings\Regional Options



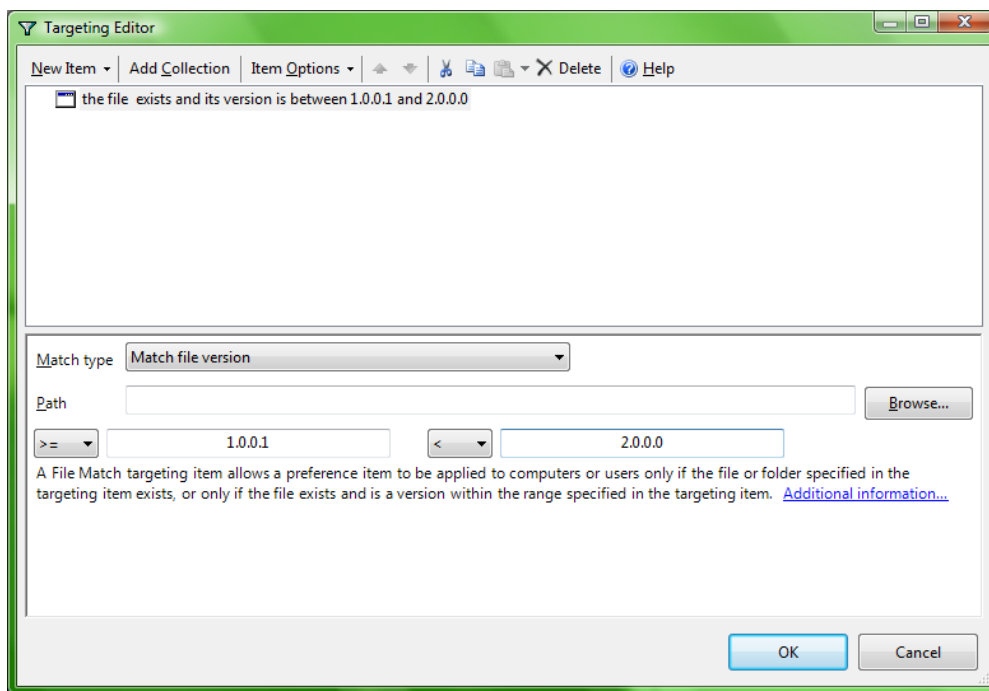
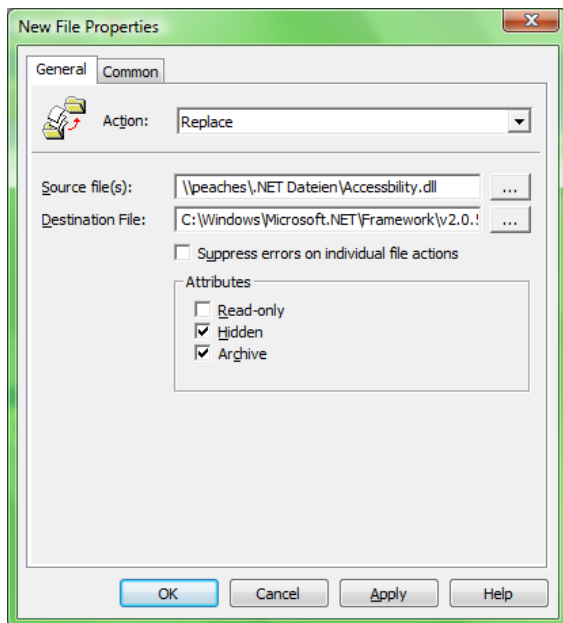
Look at the UI? Does it look familiar? Indeed it does! The whole UI of the “Regional Options” setting in the Control Panel got copied so that you can configure this preference setting as you would with a live machine in front of you. Keep in mind that, again, there are red/green lines under the settings. You should check the “Green and red lines under my options” section below.

Creating Files and Folders on client machines

User Configuration\Preferences\Windows Settings\Files and User

Configuration\Preferences\Windows Settings\Folder lets you create files and folders on the target machines and set the file attributes “archive”, “read only” and “hidden”. You can also use these Preferences to copy files and folders off a network share to the clients. You can also dictate that files that are already located on the target system will be replaced or deleted.

You really don’t need a script for this anymore. No more copying font files and updated HOSTS files manually or using a script. No more scripting using “IF EXIST” to check whether a file already exists on a target system. You can even check with Preferences if the file in the right version and date is present on the client – remember item-level targeting!

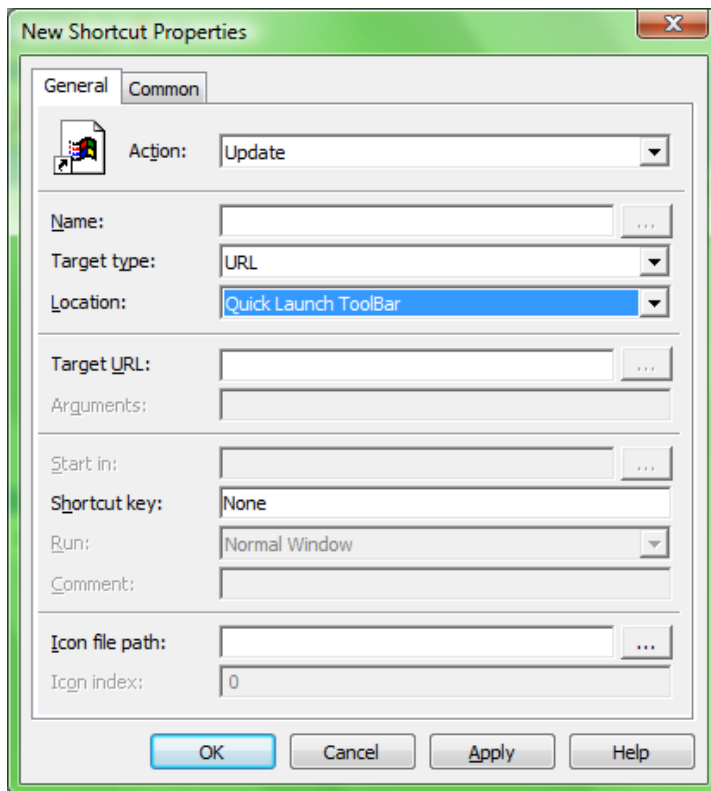


Creating Shortcuts on client machines

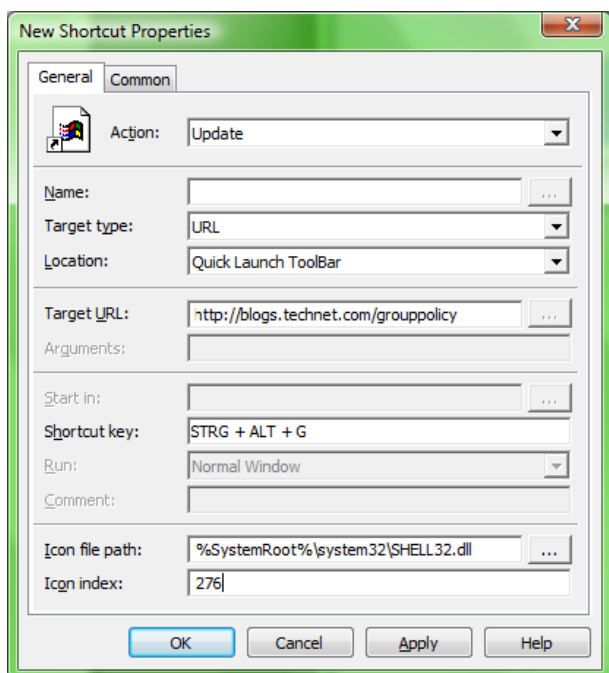
I hated creating shortcuts on users' desktops. They were not easy to manage as you always had to script them. When it comes to altering a shortcut let's say a shortcut to an intranet website that changed or an application on some app server moved. If you feel with me, the following Preference is for you:

User Configuration\Preferences\Windows Settings\Shortcuts.

You can create shortcuts at the following locations:



Did you notice? There really are “Quicklaunch”, “Send to” and “Explorer favorites” in the list. I welcome this as customizing the Quick launch bar was sort of a pain since you had to toggle it on or off in the profile as it wasn’t possible in GP before. You still had to script the population of new items for the Quick Launch Bar by copying files into the appropriate folder.

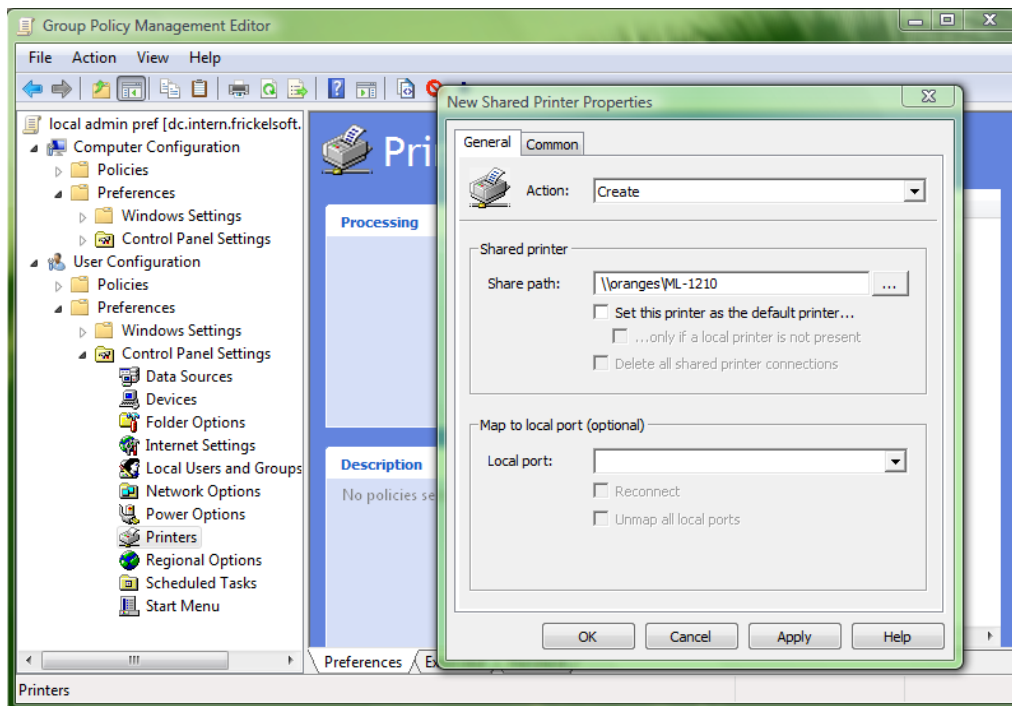


If you’re in a fun mood, you can also customize the icon people can see and click at the shortcut.

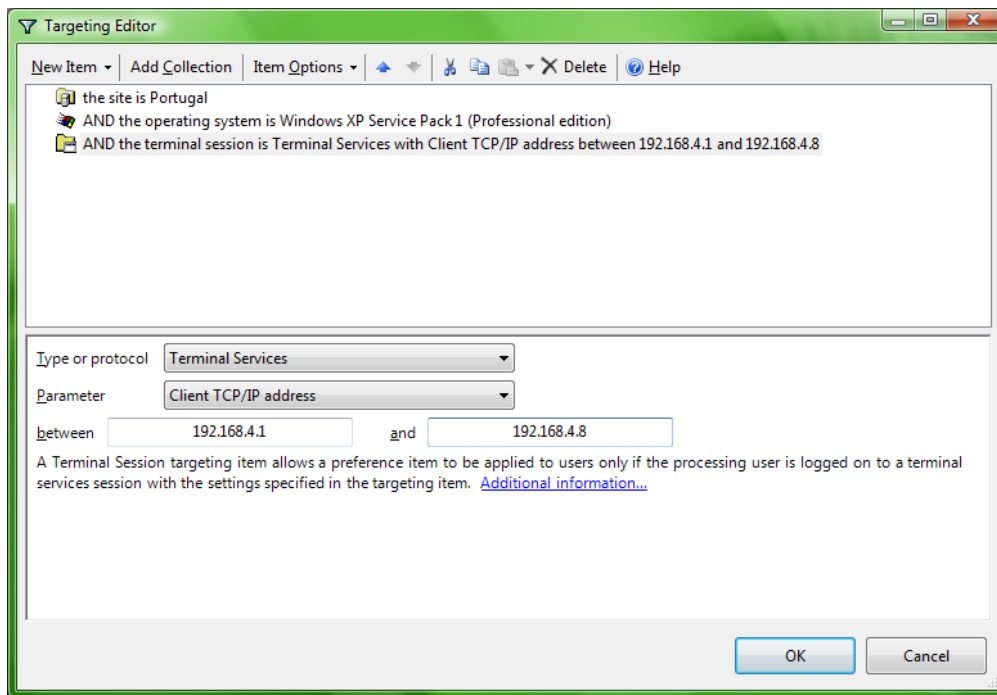
Connecting Printers

If you deployed printers using a script or you used the pretty limited “Printer Deployment” feature in R2, you’ll surely find this a good solution: you can deploy your printers using Preferences now. They have a lot of features “Printer Deployment” lacks like central logging into the event log (built-in with preferences) and the option to set a printer as the “Default Printer”. If you’re still after the scripting solution, here’s some documentation about it:

<http://www.microsoft.com/windowsserver2003/techinfo/overview/printuidll.msp>.



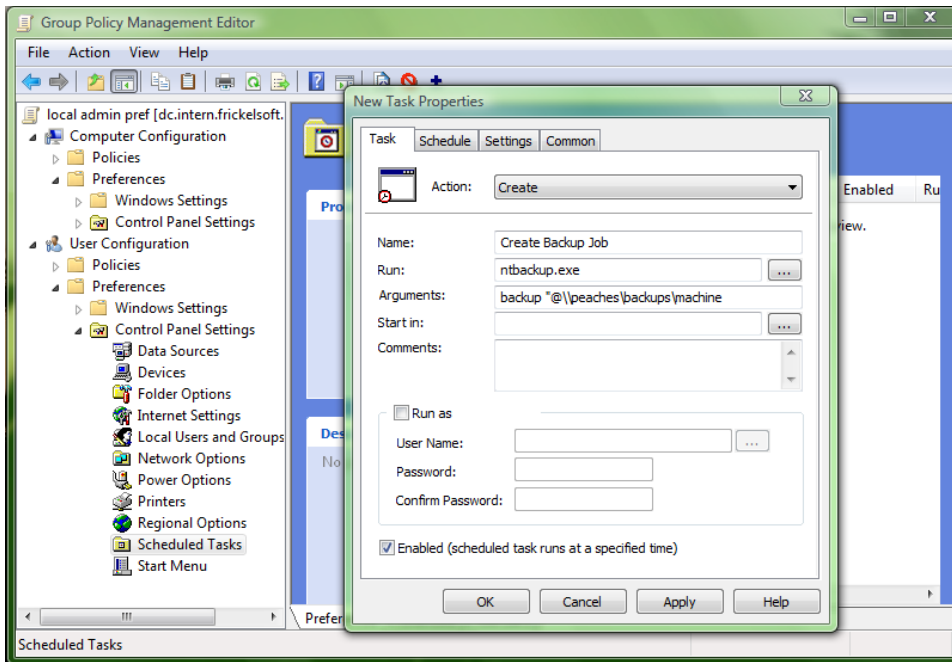
You can have shared printers, tcp/ip printers and local printers deployed. You see the “as default printer” option there? Really cool. Even there you can use item-level-targeting to filter the printer list down so that every user gets her favorite printer shared:



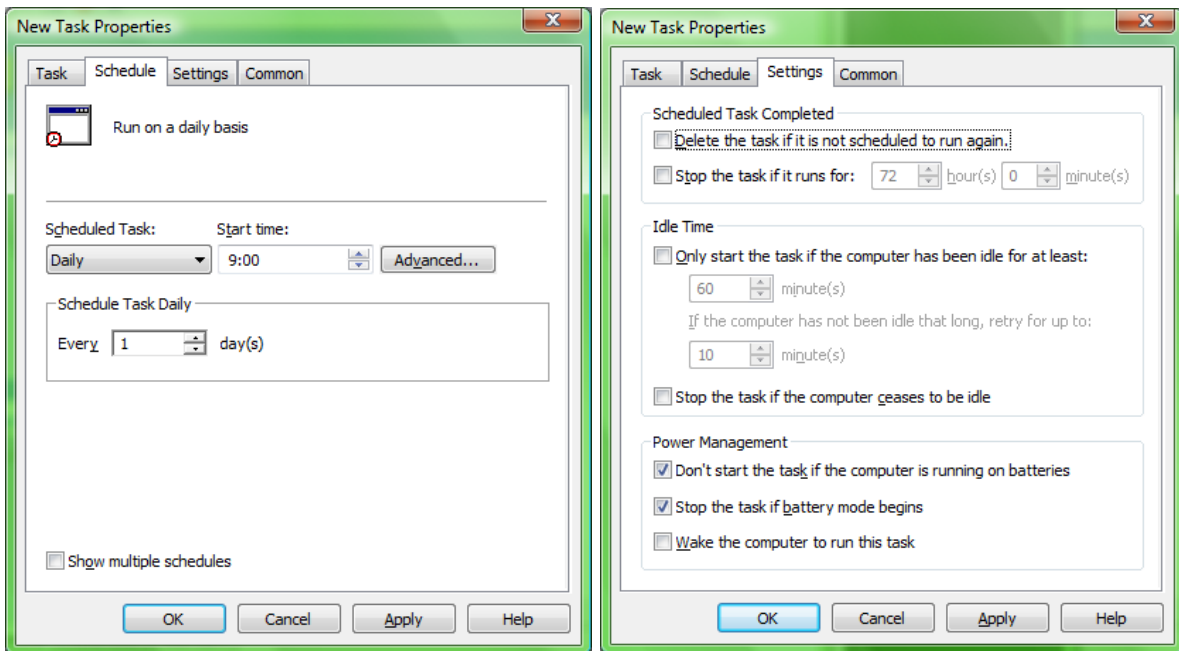
If you can script that in an average work day, send me an e-mail. If you can do that, you deserve deep honor and respect!

Creating Scheduled Tasks

That's a classic in the newsgroups on Group Policy. Everytime the question "how can I schedule a task" comes up, I keep answering: "Create a script with at.exe or better yet schtasks.exe and create the task like that." If you're trying to create a task for a batch file execution, it can get a little frustrating – create a batch to create a task that executes a batch... hmm... sounds like a tough task if you look at the parameters schtasks has: <http://support.microsoft.com/kb/814596> - at least it works. With preferences, we have a native way of doing that!



The tabs “Schedule” and “Properties” have other options for you to configure, like how often and when the task is scheduled to execute and whether it gets executed if the machine is on batteries.



Green and red lines under my options?

You surely noticed the red and green underlining in some of the UI elements in Group Policy Preference. This underlining is not a visual goodie but an indication for you as the administration whether the setting underlined is “active” and gets applied by the targets (the group policy targets, user and computer objects). Green underlining means the setting is active and will be applied by the targets. Red underlining means the setting is inactive and will therefore be ignored by the targets.

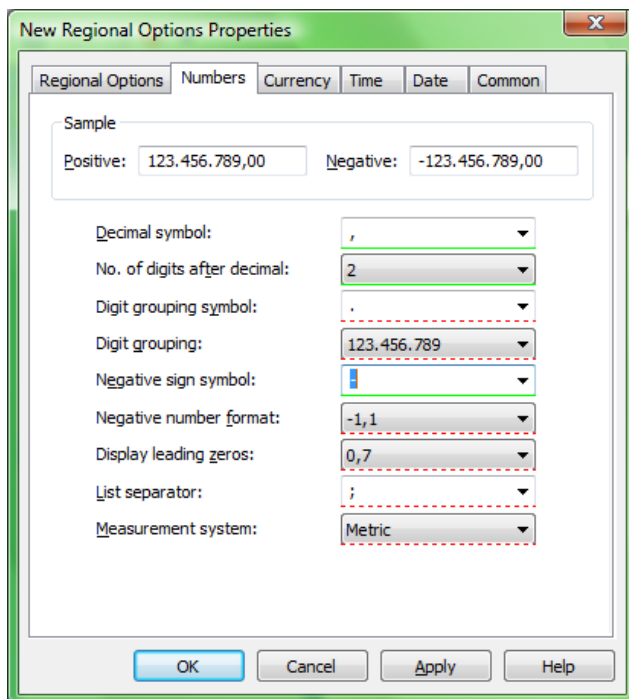
You can change the underlining and the application behind by using the function keys F5 through F8 to enable/disable the setting.

F5 – activate all options

F6 – activate currently selected setting

F7 – disable currently selected setting

F8 – disable all options



This feature is currently not *that* well documented. You can however find information about this in the help files. I'm sure you'll find an article on this very soon on TechNet or the Group Policy Team blog: <http://blogs.technet.com/grouppolicy/>

Note that the description above, "gets applied by the targets" is not 100% accurate. Clients don't decide whether to apply the setting or not based on the underlining. Red underlined settings are just not exposed in the XML configuration file that the client reads while applying the settings. It's therefore not configured at all.

Conclusion

For exactly \$0 and a little bit of deployment work, you can have a load of new settings that you can roll out to clients – without scripting. Think about the feature Preferences already has and what powerful things you can do with item-level-targeting. Painful scripting can become passé.