Relocate User folders during Windows 7 installation

Use Audit Mode to create user accounts on another partition or disk

There are several methods to move user profiles to another disk or partition after you have installed Windows 7. The easiest way is to use **Audit Mode** and **System Preparation Tool**, both built-in Windows 7 features, to permanently move the location of the folder **Users**. However, Audit Mode can only be started and used when doing a fresh, clean install, so if you have already installed Windows 7, you can use this method only when re-installing.

When Windows 7 is installed, 5 or 6 system folders are created depending on chosen bit-version:

- **PerfLogs** (Performance Logs), where Windows stores performance and reliability logs
- **Program Files**, where applications and software are installed. Windows x86 (32-bit) stores all applications here, Windows x64 (64-bit) only native 64-bit applications
- **Program Files (x86)**, only in Windows x64. All non-x64 applications are stored here
- **Windows**, which contains core operating system files and drivers
- **ProgramData**, where some applications store application and user specific settings and configuration files
- **Users**. This is the "home" of all user folders. When a new user account is created and this new user logs in first time, Windows creates a set of user specific folders Users\New_User

Moving Windows and Program Files folders is not recommended by Microsoft. However, moving both Users and ProgramData folders is safe and can save a lot of space on system disk. Pictures, mp3's videos, documents and so on, a user folder with its subfolders can be tens, sometimes hundreds of gigabytes.

 For instance, using this laptop of mine as an example, the total size of Users folder and subfolders is at the moment about 240 GB. The size of ProgramData folder is at the moment almost 18 GB. I simply could not have these folders stored in my system C: drive, there's not enough space.

When installing Windows 7, I always use Audit Mode to relocate Users and ProgramData, leaving C: drive only for Windows and applications.
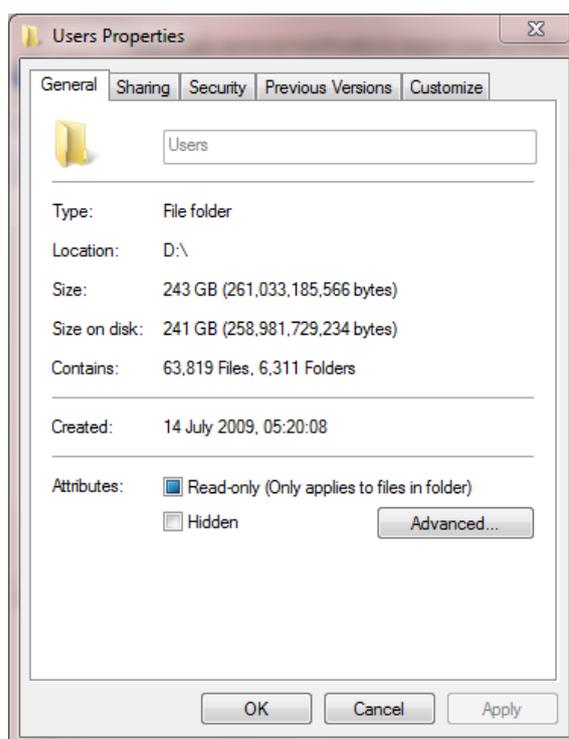
Start installation

First, start Windows 7 installation normally following this tutorial until step 10:

Seven Forums – Clean Install Windows 7

When you reach step 11 on that tutorial, where you should enter your username and computer name, leave the DVD in drive and come back here. Please notice; do not enter user and computer names now!

You should now see this screen:
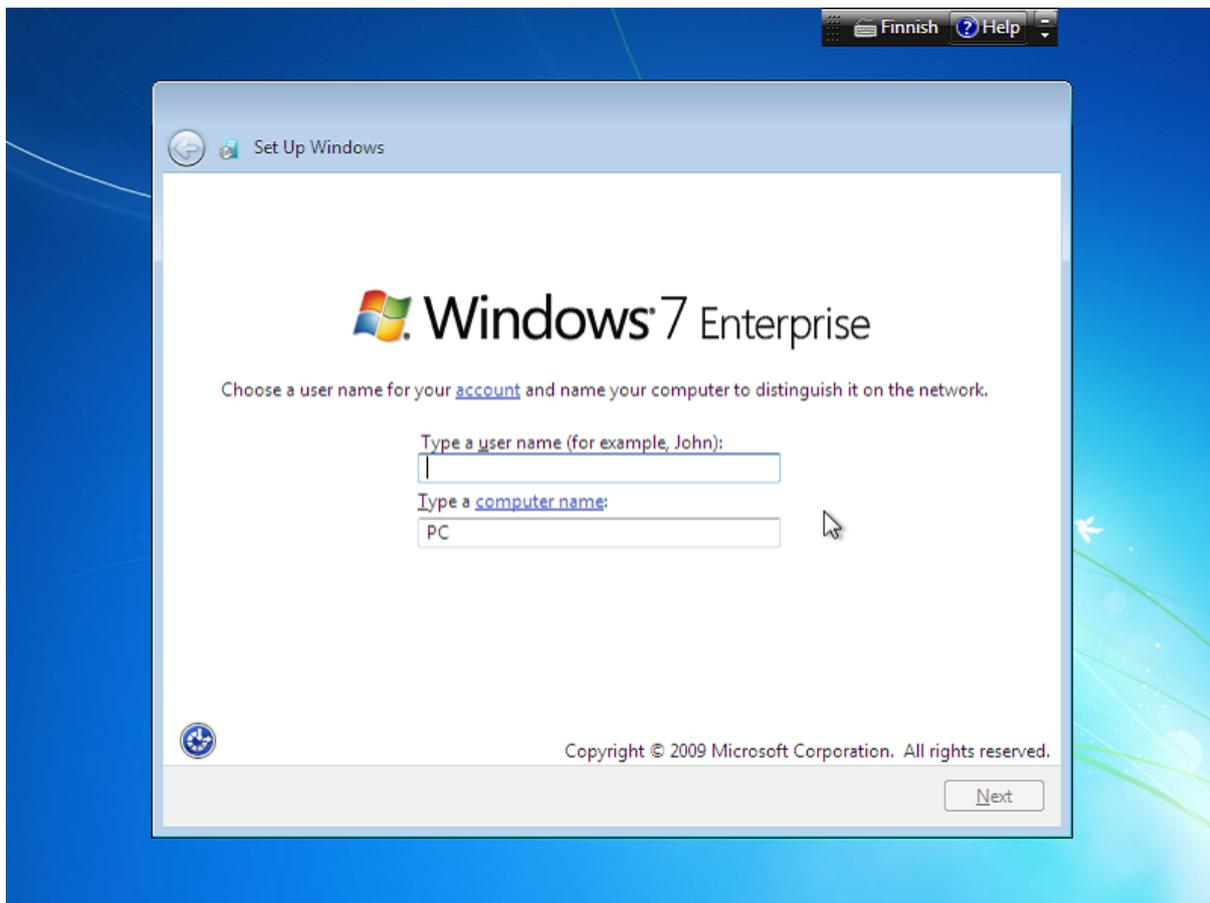
Entering Audit Mode

Instead of typing your username and computer name, press **CTRL** + **SHIFT** +**F3** (press and hold down CTRL and SHIFT, press F3 still holding CTRL and SHIFT down, release all three keys).

Your computer reboots now. Don't panic, it's just doing what it really should do. Windows starts now in so called Audit Mode, using built-in administrator account to let you to modify Windows before any user specific folders are created.

If you are interested to know more about Audit Mode, here are some links for you to read:

- TechNet: Understanding Audit Mode
- TechNet: Customize Windows in Audit Mode

When Windows stops for asking you to set network location, choose one you prefer:
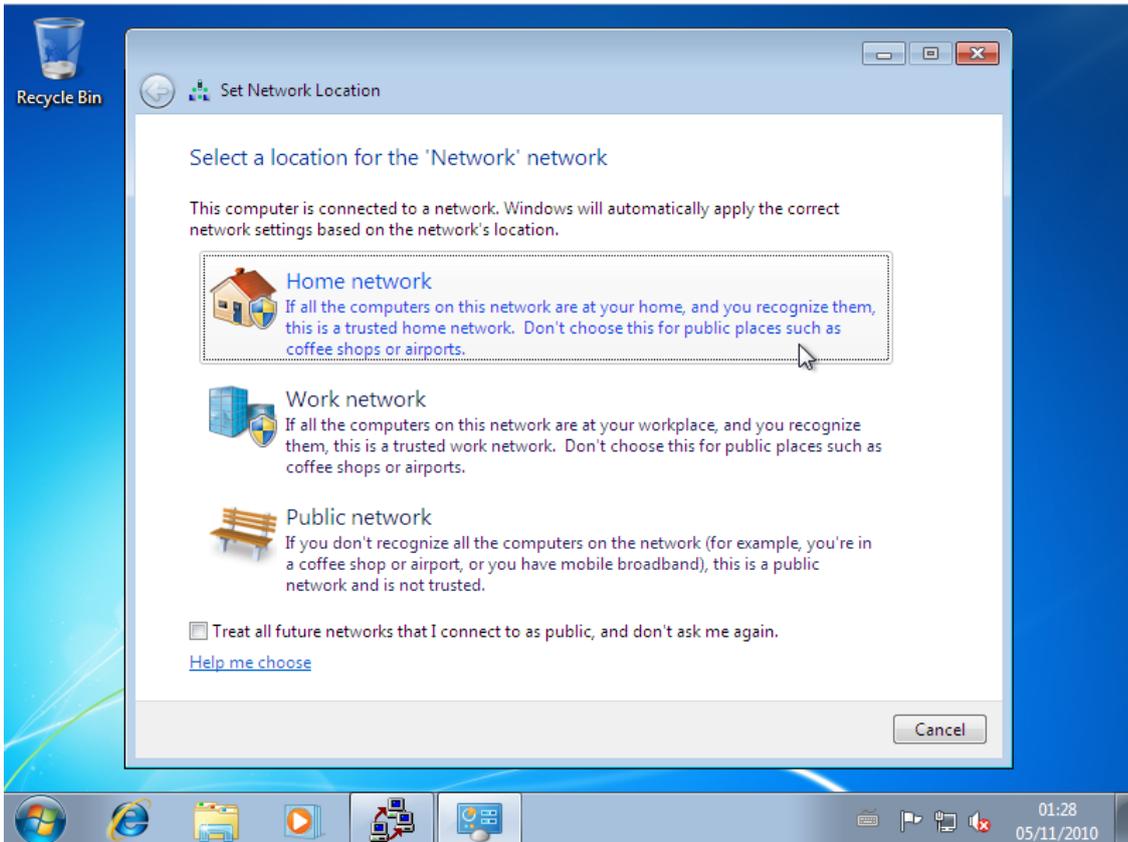
Do *not* create a Windows Homegroup now, press cancel here:
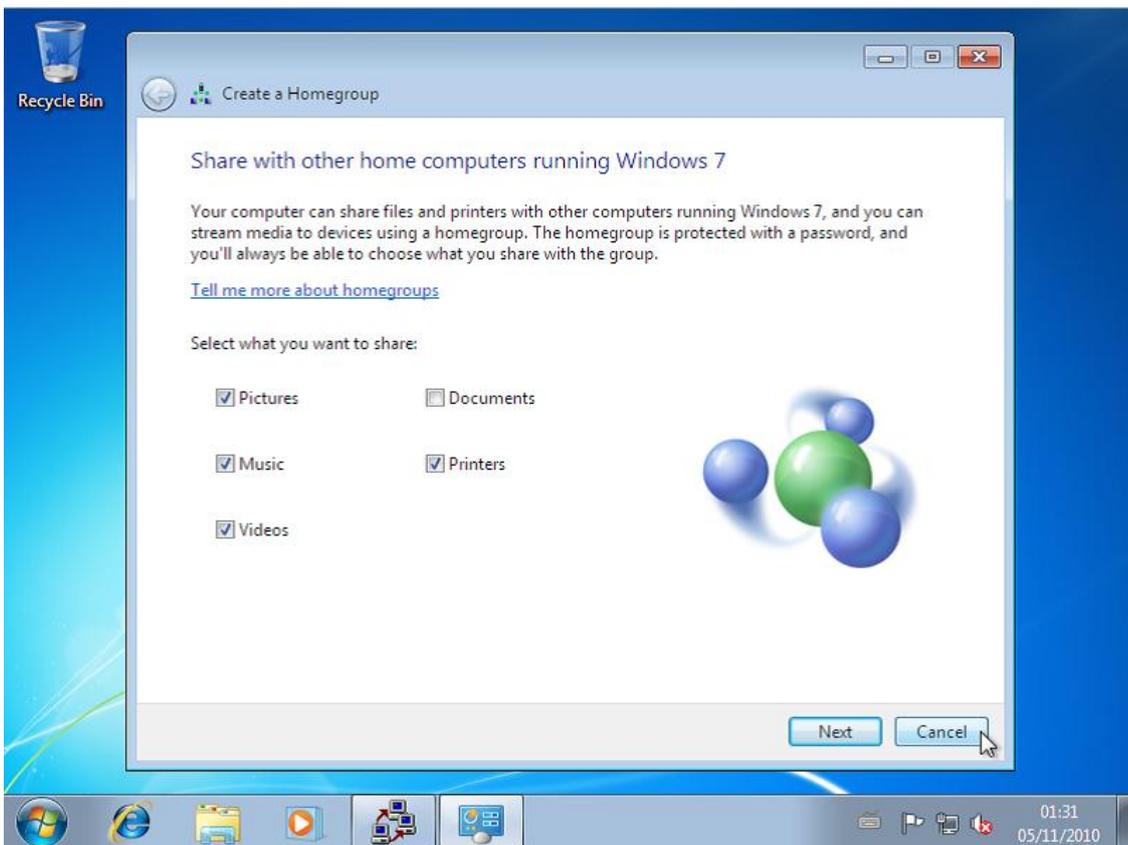
Windows has now booted in Audit Mode, and you should see this:
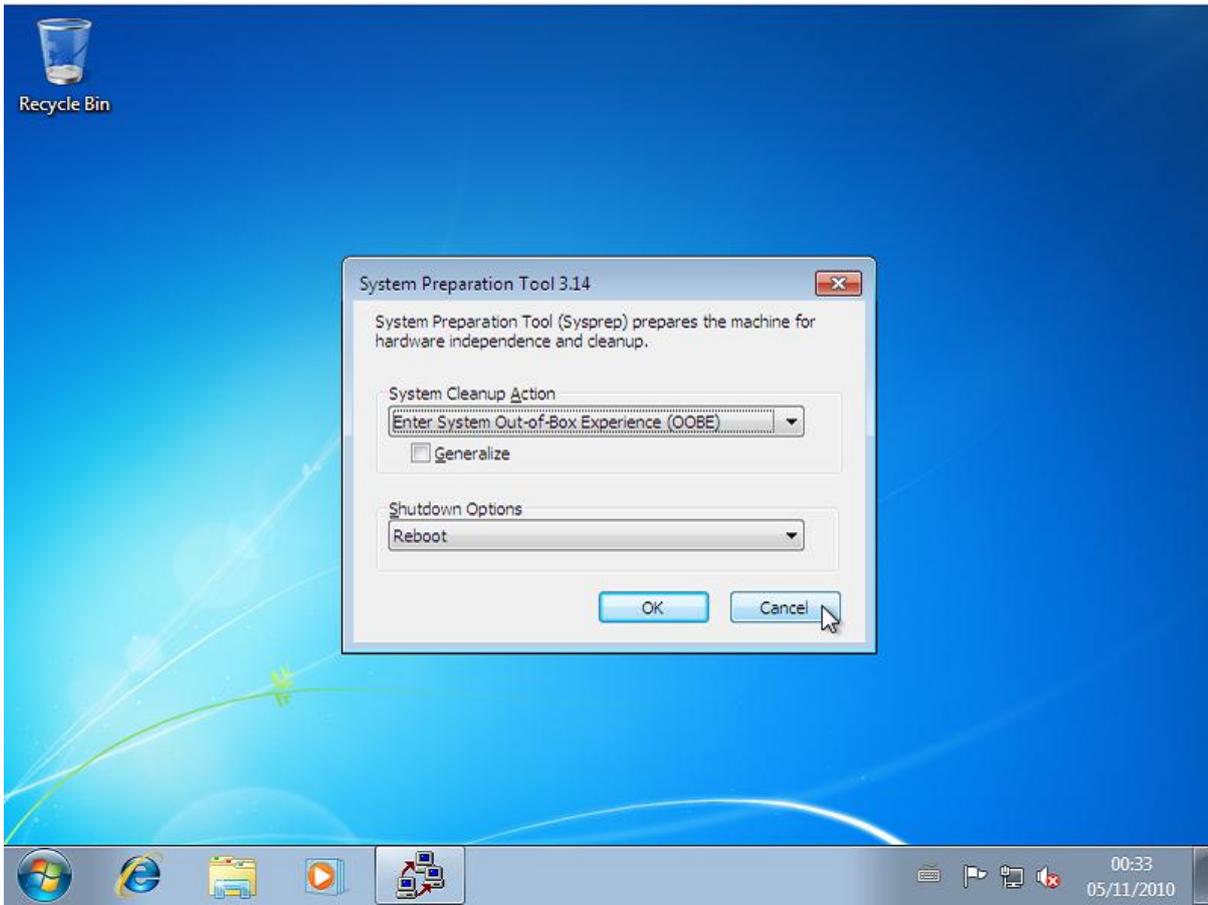
Close System Preparation Tool by pressing Cancel.

If you don't have a second internal hard disk or you have not created and formatted an empty partition on your system disk, this tutorial shows you how to create a partition where to put Users and ProgramData folders:

- [Seven Forums: Partition or Volume – Create New](#)

If you already have a formatted second HD or partition, you are ready to go.

Creating a script for System Preparation Tool

Audit Mode lets us to start Windows without creating any user accounts. At the moment, we are using the built-in administrator account. Your own accounts are created later.

We are going to use System Preparation Tool to run an XML-script that modifies the Windows registry and settings as we want to, relocating both Users and ProgramData folders to D: drive. You can of course use any internal drive you want to.

Open Windows Notepad text editor (Start menu > All Programs > Accessories > Notepad). Type the following script, or copy it from here and paste to Notepad (script created with [Windows System Image Manager](#)):

```
<?xml version="1.0" encoding="utf-8"?>
<unattend xmlns="urn:schemas-microsoft-com:unattend">
  <settings pass="oobeSystem">
    <component name="Microsoft-Windows-Shell-Setup" processorArchitecture="amd64"
publicKeyToken="31bf3856ad364e35" language="neutral" versionScope="nonSxS"
xmlns:wcm="http://schemas.microsoft.com/WMIConfig/2002/State"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
      <FolderLocations>
        <ProfilesDirectory>d:\Users</ProfilesDirectory>
        <ProgramData>d:\ProgramData</ProgramData>
      </FolderLocations>
    </component>
  </settings>
  <cpi:offlineImage cpi:source="wim:E:/sources/install.wim#Windows 7 ULTIMATE"
xmlns:cpi="urn:schemas-microsoft-com:cpi" />
</unattend>
```

Please notice: rows 4 to 7 in script above is only one row, wrapped here to 4 rows because of the limited width of the page. Same with rows 14 and 15. When typed in Notepad, the script should have 12 rows) Change these three things written in red, if needed:

- Row 4: If you are installing Windows x64 (64-bit), value **prosessorArchitecture** should be **amd64**
- Row 4: If you are installing Windows x86 (32-bit), value **prosessorArchitecture** should be **x86**
- Row 14: Change the drive letter in **wim:E** to that of your CD/DVD drive where your Windows 7 installation DVD currently is
- Row 14: Change the Windows edition at the end of the line to that you are currently installing (HOMEBASIC, HOMEPREMIUM, PROFESSIONAL, ULTIMATE, ENTERPRISE)

(If you are installing Windows Ultimate x64 from CD/DVD drive E: and relocating folders to D: you don't have to change anything, you can use the script as it is.)

Choose **Save As** from Notepad's File menu. Choose **Save as type All Files**. Name it as you want, add **.xml** extension to the filename. Save the script to the root of any drive:
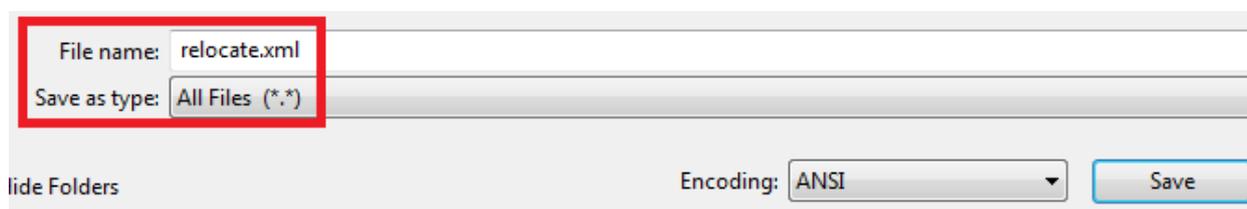
For now, I'm going to name the script **relocate.xml**, and save it to the root of D: drive.

Using System Preparation Tool

Open the Command Prompt (Start menu > All Programs > Accessories > Command Prompt). Type the following to the command prompt and press Enter to move to the right folder:

```
cd \Windows\System32\Sysprep
```

Now type the following and press Enter (notice the name and path (D:\relocate.xml) of the script we created above, change it if needed)

```
Sysprep.exe /audit /reboot /unattend:D:\relocate.xml
```

Like this:

You should now see System Preparation Tool dialog telling it is working on our script.
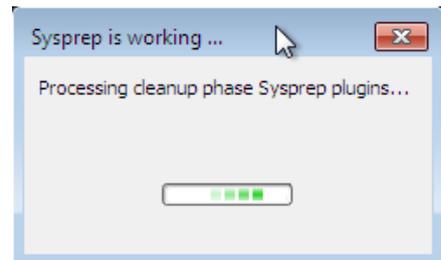
Let it run, don't touch mouse or keyboard now. When System Preparation Tool is ready, Windows reboots back to Audit Mode.

Exiting Audit Mode

To continue Windows installation we have to exit Audit Mode. After reboot you'll see this screen again. Click OK here to boot normally in OOBE i.e. normal mode:
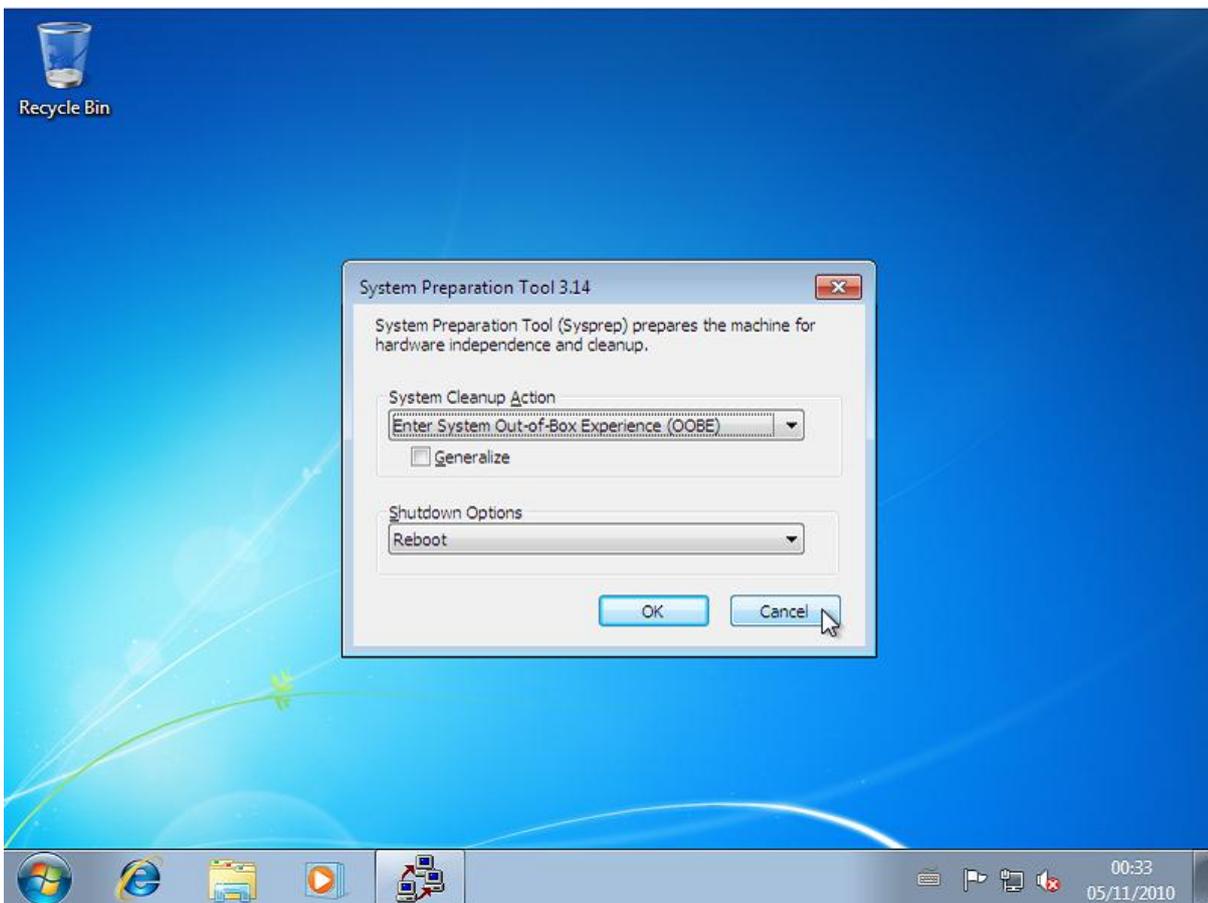
Before clicking OK, check that **System Cleanup Action** is set to **OOBE**, and **Shutdown Options** set to **Reboot**.

Finalizing installation

Finalize Windows installation. If you need help in doing that, go back to the installation tutorial mentioned in the beginning. After reboot installation continues from step 11 of that tutorial.

When Windows finally boots first time to normal desktop you can see that both ProgramData and Users folders are now located in drive D: (ProgramData is a hidden folder by default, it's visible only if you have chosen *Show hidden files and folders* from Folder Options):
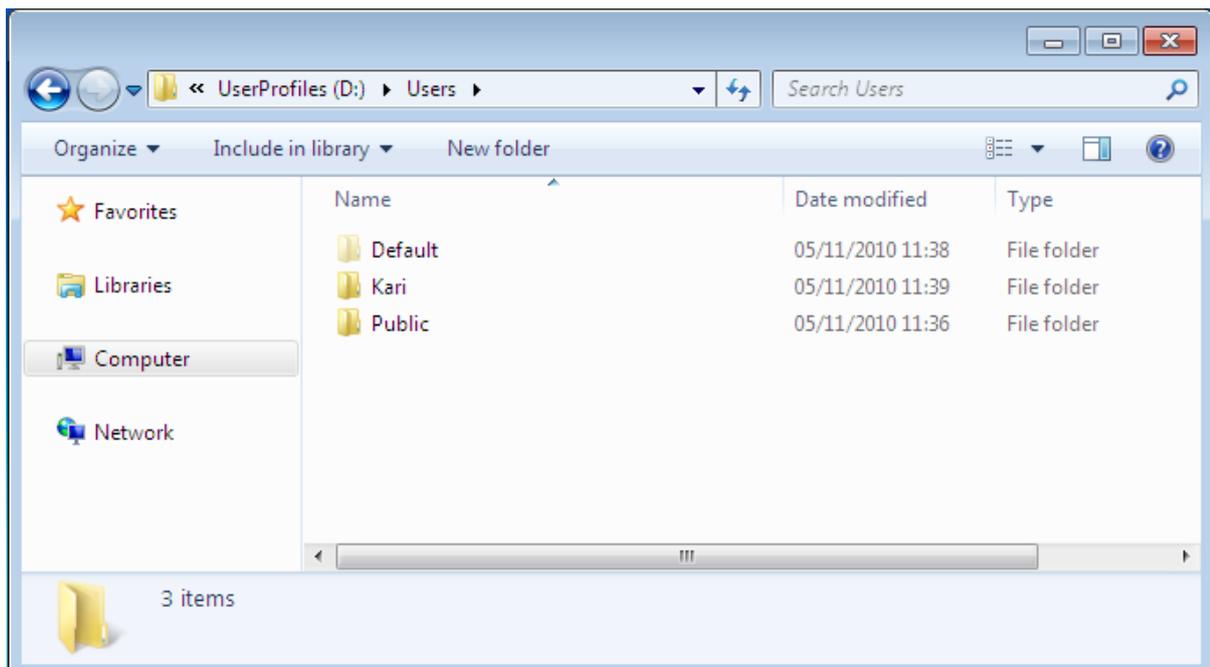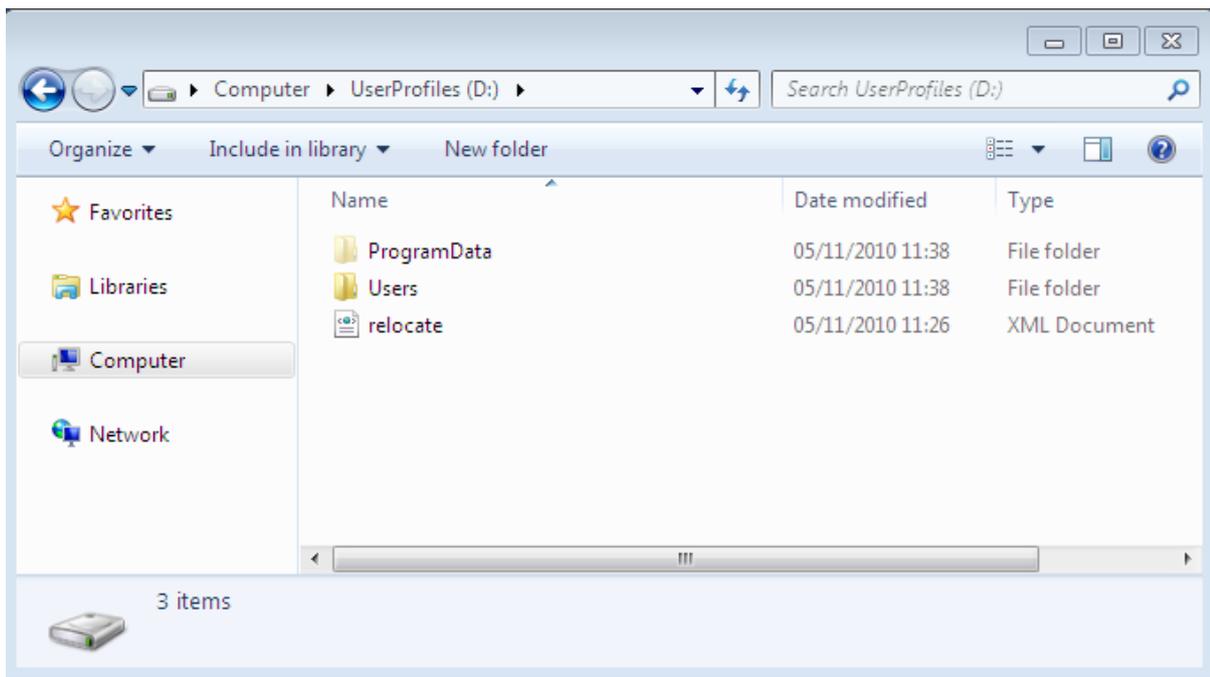
Let's test. At the moment, the folder Users only has user folders for me and the Public folder, and the hidden Default folder. Using **Control Panel > Add User**, I added an account to my wife. Everything works, Angelika's folder was created in the right place, in D:\Users:
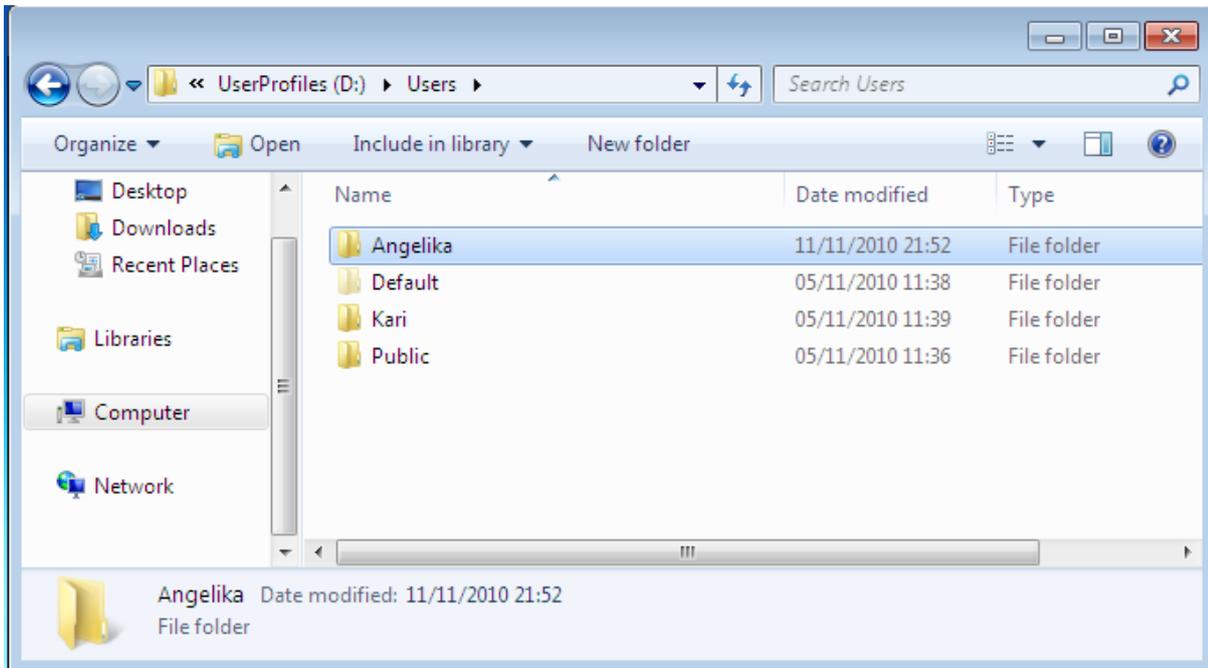
Notice that user folders are not created when you create a user account. They are first created when the new user logs in the first time, so to see the folders of a new user you have to log in to that account once.

That's it, folks! Now you don't have to remember jumplists and links everytime you restore the system to earlier point or system image. User account folders and Program Data are now permanently moved to another drive and your system drive don't be full so soon.

Thanks for reading.

Kari

EDIT: Based on my own experience, sysprep does not always like Windows Media Player Network Sharing Service (WMPNetworkSvc). Reason is unknown to me. If you get an error message when trying to run the XML script, end the service and try again.

Type this to Command Prompt to stop the mentioned service and press Enter:

```
net stop WMPNetworkSvc
```

Now run the script with sysprep command once again.