

# Tutorial: DAZ Over A Network

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## Accessing the Daz Content Library over a Windows network

[deslea@deslea.com](mailto:deslea@deslea.com)

**Coverage:** Configuring Windows to share and access a Daz content library over a network (for instance, on a server or NAS). Includes turning off Homegroups to allow granular user access control, mapping network drives, and editing the registry to make Daz Installation Manager recognise the mapped drive. Also includes some high-level guidance about equipment choices. The instructions are compatible with Windows 8.

**Exclusions:** DHCP/TCP-IP configuration is not covered.

**Target Audience:** Intermediate-advanced PC user.

## Why network?

You should have a good idea of what you want to achieve by networking. Benefits for the 3D artist include:

- Ability to work on multiple machines by sharing a content library
- Ability to back up one or more machines to a networked hard drive
- Ability to distribute render work to other machines and free up your design machine

The first of these, accessing content over a network, is the focus of this tutorial. A wired network is highly recommended for this purpose. Wireless is possible, but can be painfully slow.

The other two tasks are quite feasible over wireless. I am not going to cover them in detail, but in brief, you can back up by accessing and mapping networked resources using the information in Steps 1-3 of this document, then writing a backup script based on Step 2 of my tutorial *Daz Content Library Migration*, and saving it for re-use as a batch file. Also, you can distribute render work by using a plug-in such as Batch Render to export a render job as a RIB file, then use another machine to open the RIB file and run it in something like 3Delight standalone.

## Choosing your equipment

To network your computers, at a minimum, you need a router to sit between the computers. Routers (which basically direct traffic between the machines) can be wired or wireless. Your broadband modem, and/or your wi-fi, almost certainly are routers as well. (There are exceptions - these include wifi access points, old el-cheapo modems designed for one computer, and routers that have been put into bridge mode - but I'll assume that if you have any of those, you set it up yourself and you already know what you're doing).

If you traffic in large amounts of data - which you probably do if you're doing 3D work - you should go for wired networking if possible. Wireless is feasible, but slower, and not as stable. That will be a problem if you want to go for a centralised content library - it won't respond fast enough when trying to render. However, if you can only go wireless - for instance, in a rented house - you can still get some benefits, including

centralised backups and distributed rendering. You can do a bare-basics wired network without modifying your home if you have all your machines close together, and/or with long data cables.

If you want to use a centralised hard drive, think carefully about why. If it's to create a consolidated backup of all your machines, you only need something simple. It doesn't really need to be expandable or accept another hard drive plugged in, so you can go for something like Western Digital MyCloud (\$100+). This is designed to just give you whatever storage it has, and accept a USB 2.0 hard drive tacked on (USB 2.0 isn't really fast enough for any practical purpose in the 3D world).

However, if you're after centralised storage that's your day-to-day "source of truth" - that is, the data on your work machines is treated as more or less temporary and disposable - then you need something to back it up in turn, and you also need a lot of control and monitoring capabilities, and scalability as well. I use a Netgear ReadyNas 100 Series (\$400), which has two hard drive bays, is expandable to 28TB with an extra component, and has USB 3.0 and eSata, so you can attach a high speed external hard drive to back it up. (NAS is short for network attached storage). You could also pair an old computer with a couple of new hard drives for this purpose.

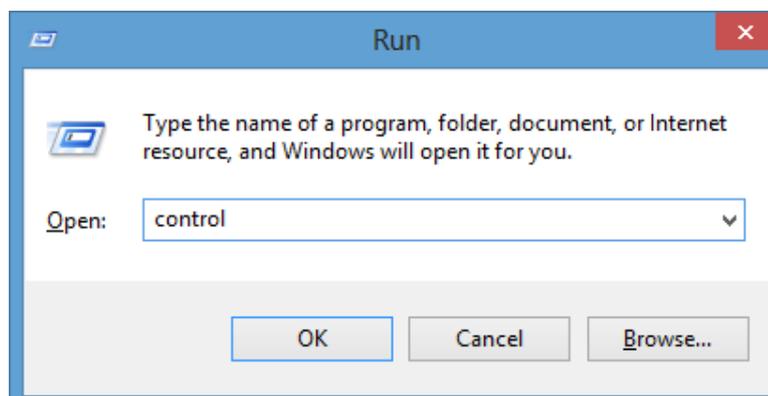
I don't propose to walk you through configuring your network addresses and router config, as this is a highly individual thing depending on your equipment. I will assume that your wiring, routers and switches, DNS, DHCP or manual IP addresses, and so on are already in order. The main thing is to understand how IP addresses and DHCP works, which a bit of Google-fu will tell you. Then it's just fiddling from there.

So the point I'm starting from, is assuming that your computers are connected to the network and the connection works. I'll pick up the thread at the point of managing permissions, group shares, and mapped hard drives so you can actually find your way around the things you want to see.

## Step 1: Get ready for file sharing

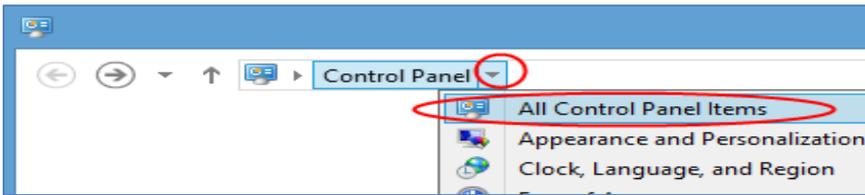
If you want to transfer data between computers on your network, or between a computer and a NAS, you will probably need to tweak your machines to do it first. This applies to all types of data, by the way, not just DAZ content libraries.

Windows PCs ship with Homegroups turned on. Homegroups is a bare-basics "Networking For Dummies" that frankly isn't good for much at all. The only options with Homegroups for any given file are (a) share with everyone on the network, or (b) share only with people with exactly the same login details across all machines. This is pretty limiting and meets very few people's needs. So you will probably want to turn Homegroups off on **all** the computers on the network. This will make Windows prompt you for a username



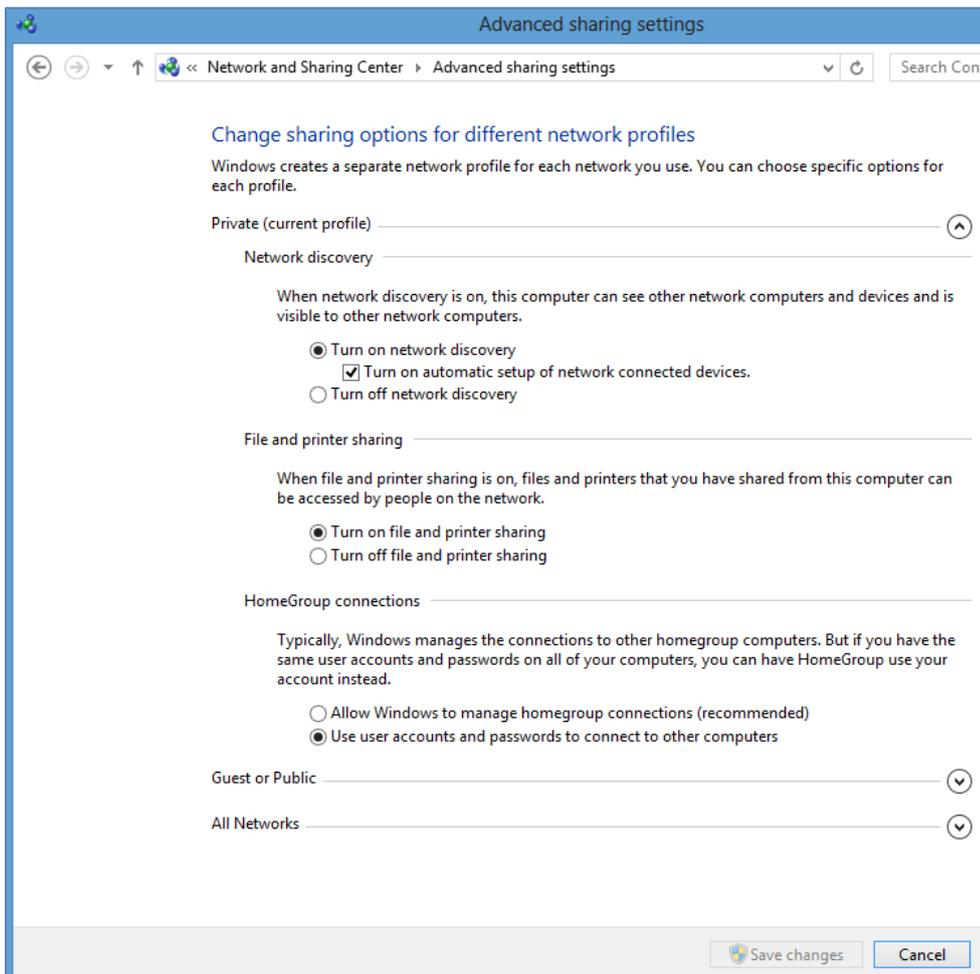
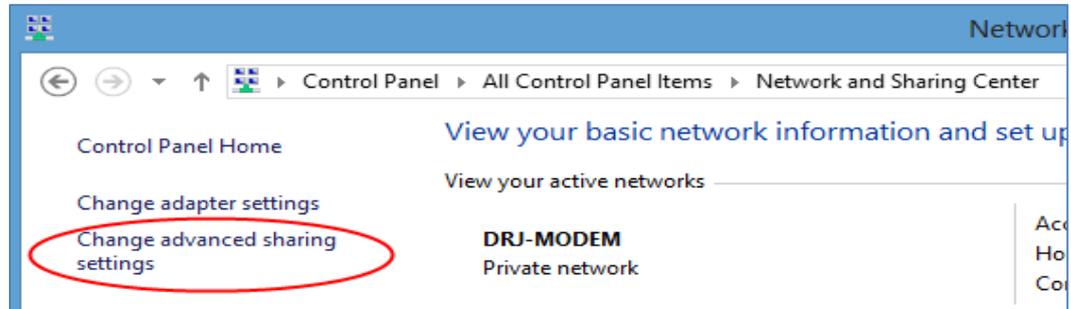
and password, if required, for the things you access. This lets you lock things down to all, some, or just you, access things from machines where you use a different username, and so on.

You can turn off Homegroups in the Control Panel. On your keyboard, click [Windows]+[R]. In the little popup, type `control` and click OK.



Click the little arrow beside *Control Panel* in the window that appears, and choose *All Control Panel Items*.

Now, click *Network and Sharing Center* and then, on the left, *Change advanced sharing settings*.



For the Current Profile (which should be Private):

Under *HomeGroup Connections*, select *Use user accounts and passwords to connect to other computers*.

Under *Network discovery*, select *Turn on network discovery* and tick *Turn on automatic setup of network connected devices*.

Under *File and printer sharing*, select *Turn on file and printer sharing*.

Click *Save changes*.

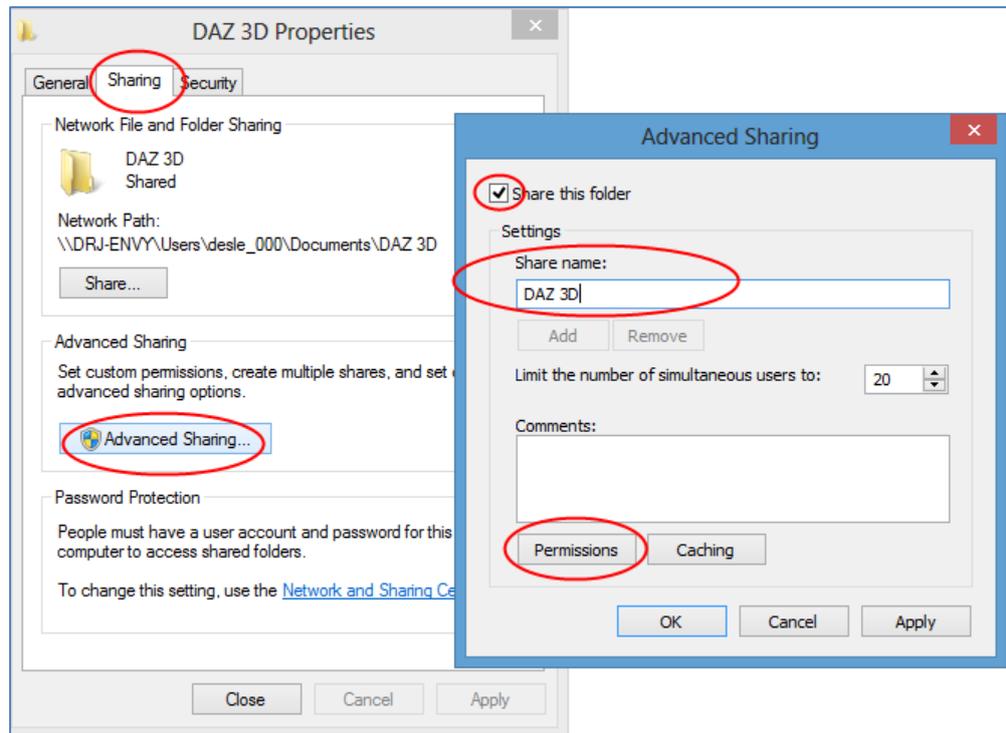
## Step 2: Configure network shares

I am going to limit my discussion to establishing network shares on a Windows PC. If you have, for instance, a NAS, it will probably have a web interface where you can do the same basic tasks I will lay out here.

I am also assuming, for ease of explanation, that you are the intended user on all computers (ie, you have working usernames and passwords for each machine, even if these are not the same).

To share a folder over the network, right-click the folder in Windows Explorer and click *Properties*. On the *Sharing* tab, click *Advanced Sharing*.

Tick *Share this folder* and give it a user-friendly name. Remember, if you're using Daz on multiple machines, you'll need something that tells you what this particular

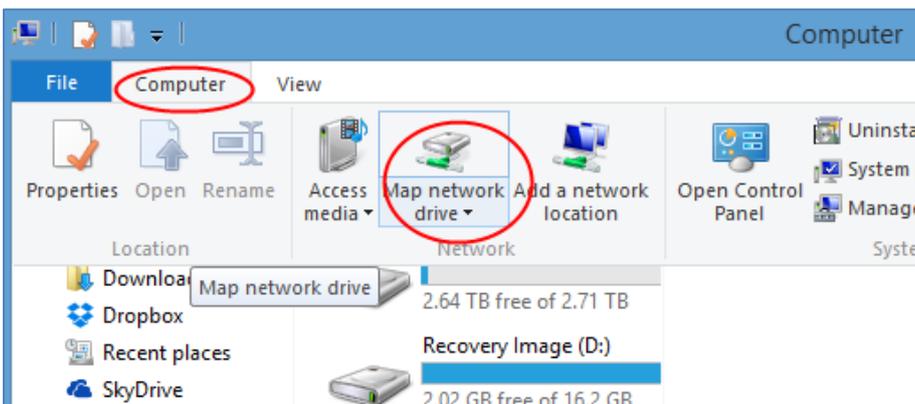


folder is for. So you could call it Daz-Backups or Daz-Content or whatever it is you're actually sharing it for.

If you're the only one who will access all this, you could just leave it there and OK out of each window. But if you wanted to give limited rights to other people, such as read-only, you could use the permissions button to do it. Daz content is only licensed for one user, so I'm not going to get into the specifics here, but you can find out how to do it by Googling *windows file permissions*.

Now, if you want to look at (say) \\OLD-PC\backups, you can just type \\OLD-PC\backups into the address bar in Windows Explorer. If it's the first time you've gone there during this login session, you will be asked for a username and password. Use your username and password for OLD-PC, not for the machine you're using now.

You've now successfully shared resources over the network.



### Step 3: Map a network drive

Daz isn't set up to "read" network addresses, so you need to fool it into thinking your network share is a regular hard drive. This is pretty easy to do.

Go to *Computer* in *Windows Explorer*. Press [Alt], then go to *Computer* in the top menu, then select *Add Network Drive*.

In the popup that appears, choose a permanent drive letter for the network share, and enter the name of the share.

Make sure both options are selected, but keep in mind that these options essentially store the share's security access settings with your login, so anyone logged in as you can get to it. If you share logins for some

reason, this poses security risks for your data. (But then, if you share logins, your security is at risk anyway). However, if you want Daz to be able to use the resource without running into roadblocks, you need to auto-connect.

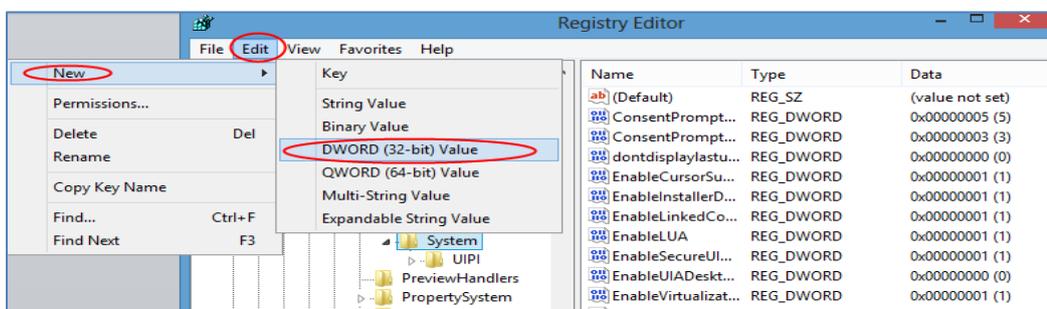
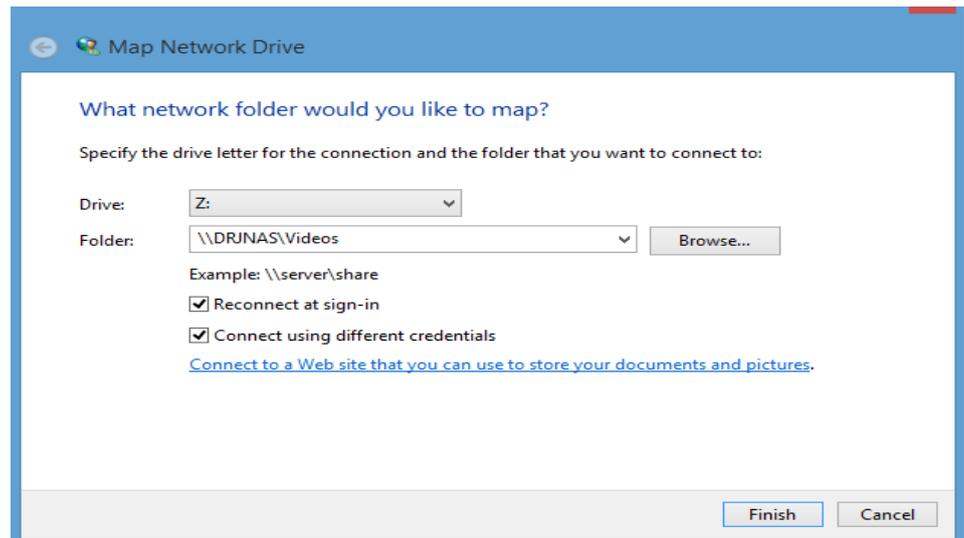
In the example above, I could now tell Daz to install my content in, say, z:\dazcontent, and it would think that dazcontent was just another folder on one of my computer hard drives (and not a subfolder of the network share \\drjnas\videos).

#### Step 4: Editing the registry

One problem you may encounter is that Daz Installation Manager may need to run with Administrator privileges. (I talk about this in my tutorial *Daz Content Library Migration*). However, when you run a program with Administrator privileges, it runs with a kind of generic Admin profile - that is, without your personal settings. But mapped network drives are personal settings. So you can't run DIM, and see the mapped network drive, at the same time.

There is a workaround. You can edit the registry so that the Admin profile can see your network connections, and therefore let DIM see your mapped network drive.

**Be careful when editing the registry.** You can make your PC completely unusable if you do something wrong. But no pressure or anything.



Use [Windows]+[R] again to call up the Run popup. Type regedit and hit [enter]. A window will appear with a tree on the left

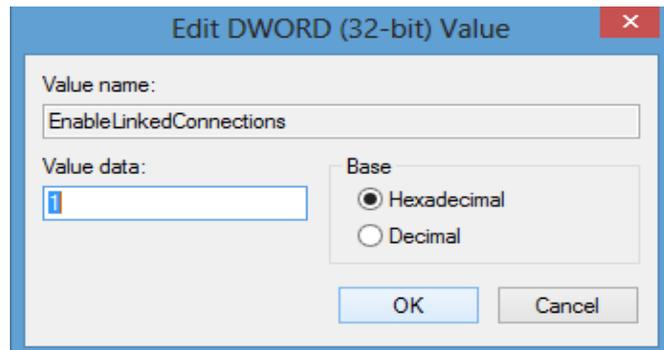
side and lots of cryptic values on the right.

On the left, navigate to HKEY\_LOCAL\_MACHINE\SOFTWARE\MICROSOFT\WINDOWS\CURRENT VERSION\POLICIES\SYSTEM. Then go to Edit - New - DWORD (32-bit) value.

An entry will appear on the right called *New Value #1*, already selected and ready to be renamed.

Call it *EstablishLinkedConnections* and double-click it to open it. A little popup will appear. Change the *Value data* from 0 to 1, and click OK.

Exit from the registry, and restart your PC.



## Conclusion

We have undertaken the following steps:

- Turned off Homegroups on all PCs on the network. This is to force them into advanced file sharing, which allows you to use your password across the whole network to access a resource, without opening the resource up to everyone who uses the network.
- Defined network shares to make certain folders available to all machines on the network (if the right username/password combination is used).
- Mapped a network share to a drive letter so DAZ can use the share.
- Made the network share available when using Administrator privileges, so Daz Install Manager can use the share.

You are now ready to use Daz content over a network.