# MCS-CVD Computer User Policy

Updated: 03Feb04

Welcome to the new MATERIALS domain! If you have any questions, the computer managers are Justin Daniel Meyer (jmeyer) and Haibiao Chen (hchen) at x5332.

Login

When you log in, you will see a box with three fields and some buttons in it. Use your Attila username, the password you set up with the computer manager, and make sure the domain is set to "materials".

Upon successful login, you should see your login script execute. If login is not successful (or your script does not execute), advise the computer manager. If you are on a Win2000 or XP machine, switch the domain from "materials" to the name of the computer at which you are working, i.e. "MSC01 (this computer)". This will allow your to login locally until the problem is resolved. If you are on a Win98 machine, just click the cancel button.

Successful login and script execution will result in automatic network drive mapping, script execution, *et cetera*. An example would be:
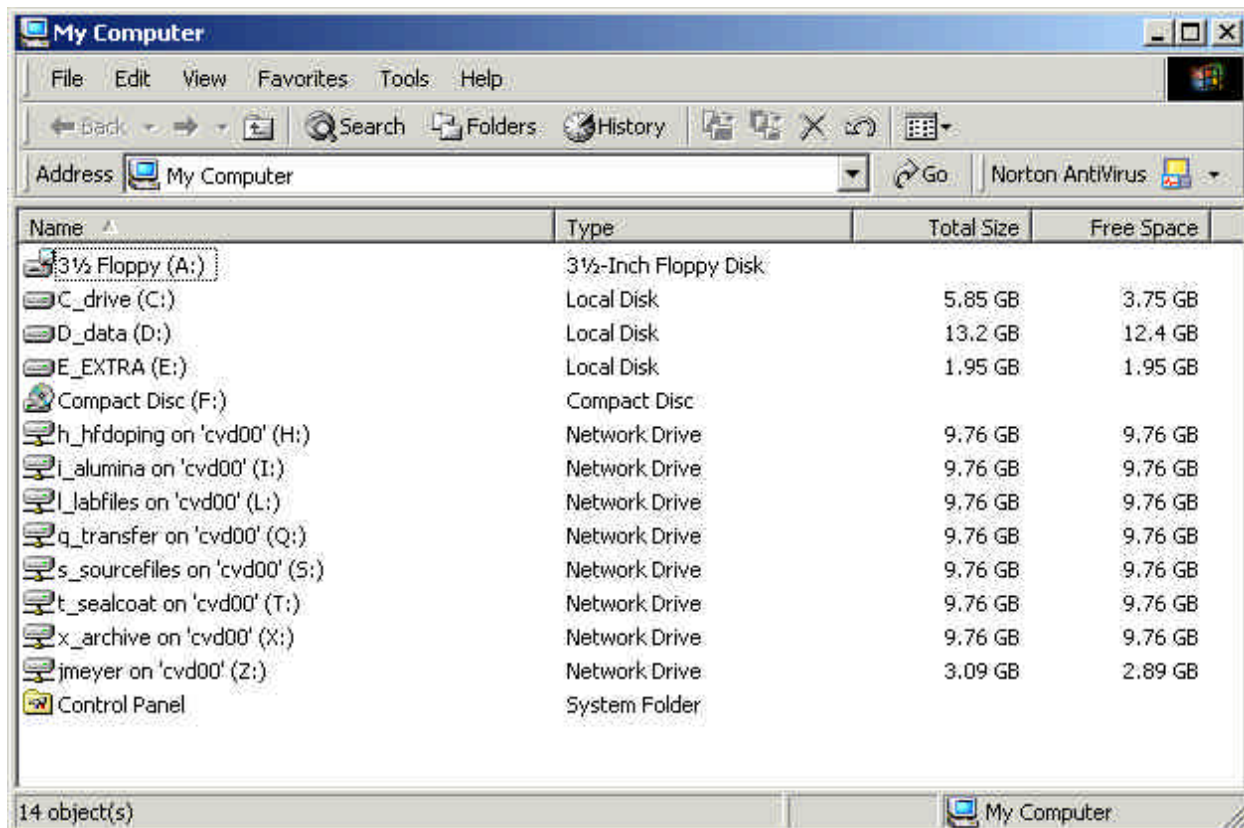
Common Network Drives:

Note mapped drives H: through Z: in the example above. These are the folders on the server which are mapped to local drive assignments—from here on referred to as 'drives'. While not all users see the same drives, all drives are mapped to the same drive letter—'q' is always the transfer share, *et cetera*. There is a lot of space on the server, but the reported free space is limited to 10GB. If the "free space" on your drive falls below 9GB, advise the Computer Manager.

In addition to you specific project drives (H:, I: and T: in the example above), you will see the 4 common user drives, titled labfiles, transfer, sourcefiles, and archive. The contents of these are detailed below.

l_labfiles on 'CVD00' (L:)   Stored here are commonly used files such as the CBME presentation slide template, pre-made shipping tags, budget spreadsheets, PR pictures, lab staff pictures, equipment manuals in PDF format, *et cetera*. Take a few minutes to browse this drive so you know what's there and can use it instead of duplicating effort by starting from scratch. Please remember to add files you think other lab members can use to save time and avoid duplicating effort. It is also important to remember that all users can add, change and delete files from this drive. Please do not delete files unless you are absolutely sure no one else will need them—so don't delete them!
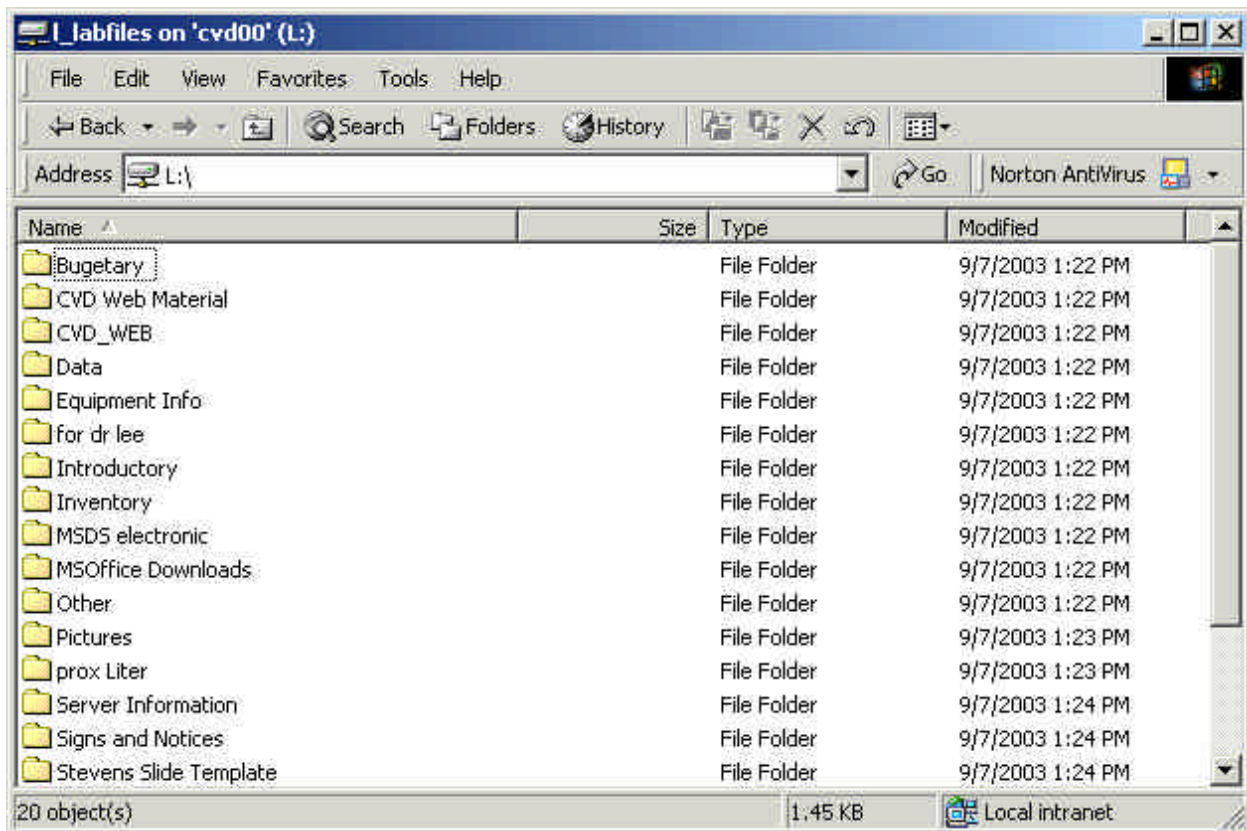
q_transfer on 'CVD00' (Q:)   Other lab members on your project share your project drive and can see where you put files and can get to them. This is not true for other users. Should you need to share a file with a user not on your project, you would create a directory on this drive using your username and put the file(s) for them in that newly created directory. Tell them where to find the file and to move the file to their area. *This drive is not a storage area!* Any files left for 7 days will automatically be deleted by the server if no changes have been made to them. Thus, you may use this area to work collaboratively on a file(s), but make sure to keep a backup copy in case it(they) get deleted.
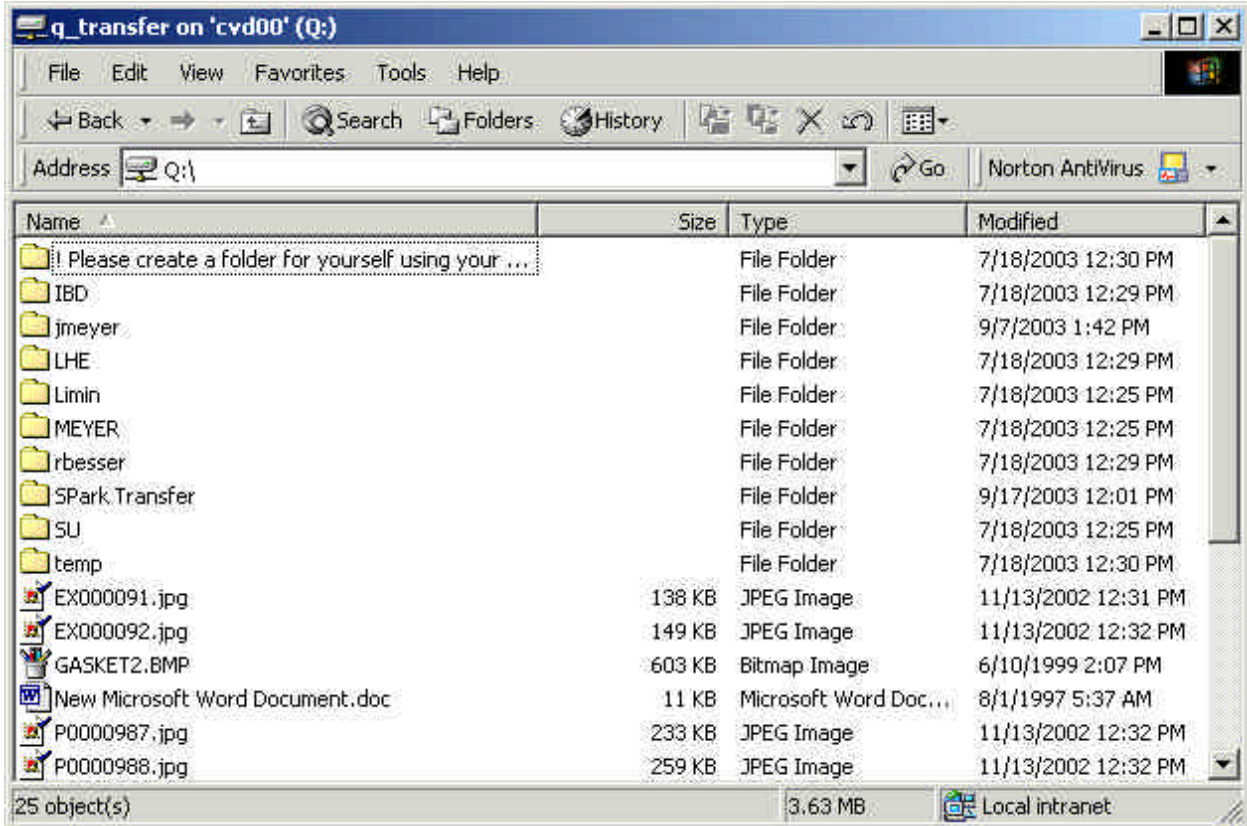
s_sourcefiles on 'CVD00' (S:)   This read-only permission drive holds a copy of most of the windows software installed on many of the lab computers. Use as needed. If you would like something added (so a backup is kept and others can get to it), contact the computer manager. Large programs, including those covered by the Stevens site licenses, are kept on CD with the computer manager.
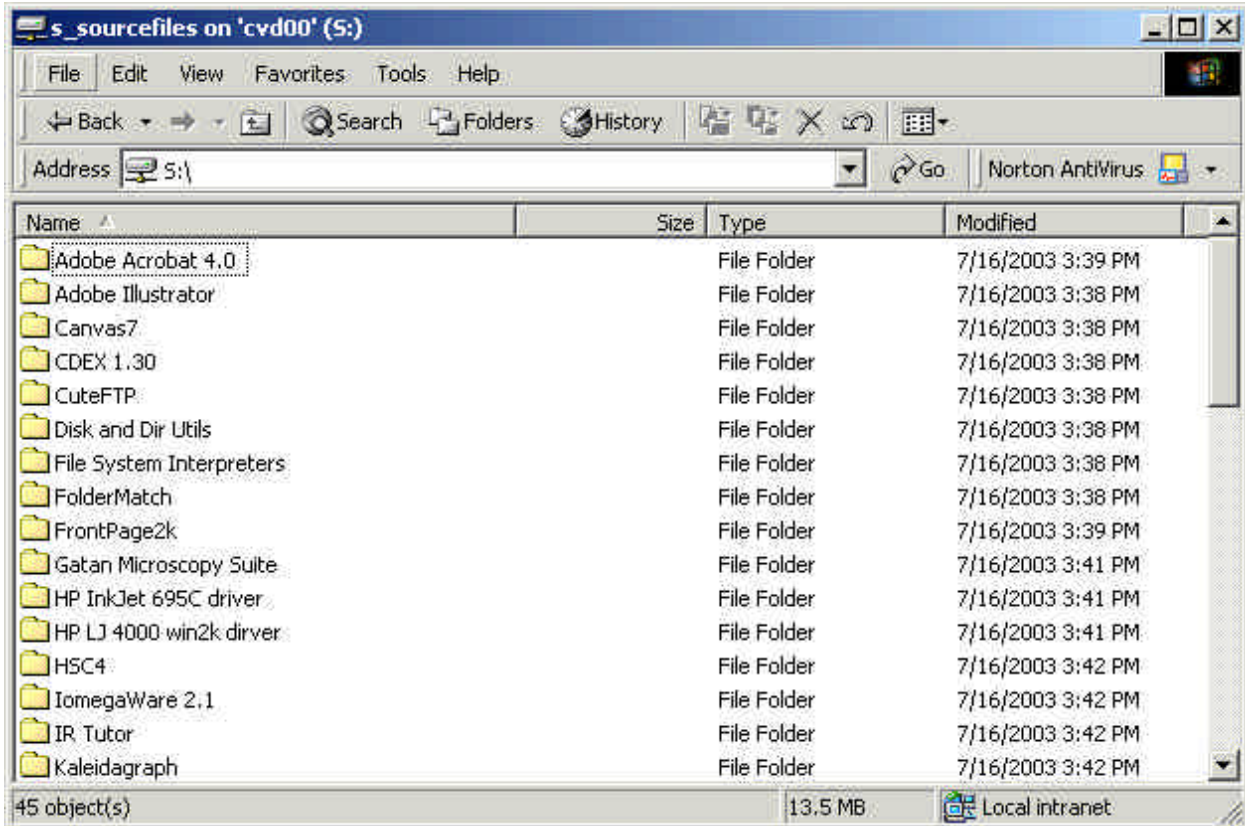
x_archive on 'CVD00' (X:)   This read-only drive is where finished documents are placed for reference and use by all users / lab members. Once a thesis, professional meeting presentation or poster, dissertation, report, or significant group presentation is completed, a copy must be provided to the computer manager for archiving. Once a file is archived, all previous versions *must be deleted* so current and future users are not confused as to which is the final work. If you shared the file with other users, remind them to delete their versions. This also prevents wasted drive space (it isn't free). Archiving also applies to journal articles, except that copies are submitted to the computer manager upon submission, editing, and final acceptance (the status is noted for each case).

If you have another version of a presentation with minor changes for a different audience, you may either put the changed slides at the end of the original presentation or just keep the different slides in their own file with a reference to the main presentation file. There is no need to have two 30+ MB files with only 2-3 slides varying between them.

To repeat: once a file has been placed in the archive, all prior versions *must be deleted!* The Archive is our 'public' record of communications and analysis of results.
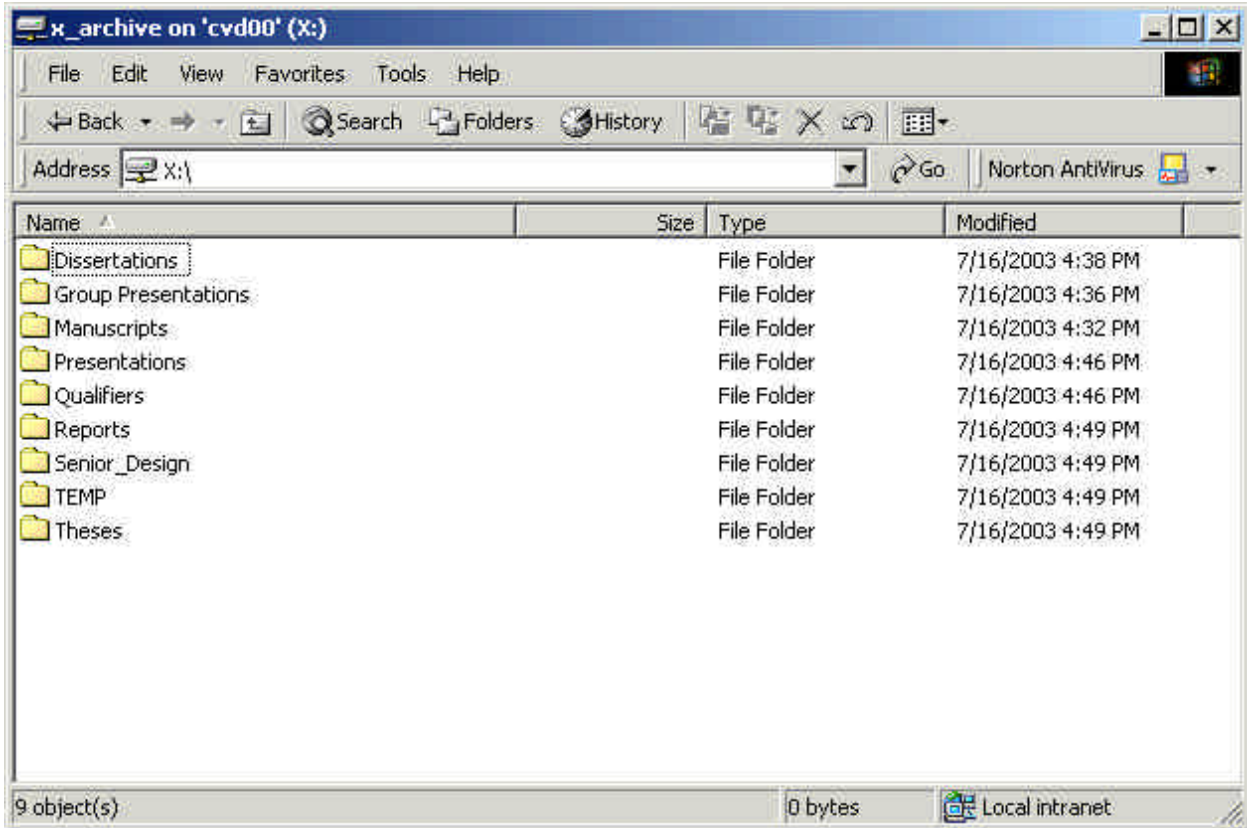
User-specific Network Drives:

In addition to the common user drives (L:, Q:, S:, X:), you will see one or more specific project drives (H:, I: and T: in our example).

At the top level of each project drive are several organizational folders. All of your files related to that project go in one of these folders. If a file does not, it doesn't belong on the server (like mp3s, movies, software, etc).

All project data goes in the "Data" folder. If you have several sub-projects or types of data, feel free to make several data folders, as in the example below. If you take a data file and somehow change it (data/image analysis or whatever), rename it by adding something similar to "-analyzed" to the original file name. This way original file is also kept intact.

At the top level, there are also user folders (for user-specific files). It is strongly encouraged that you put all downloaded papers in a folder called "PDF Papers". Your group might also want a "Presentations" folder of it's own for small (3-6 slide) update presentations or a "Reports" folder for short status reports. The group should decide together. (Professors may influence some decisions.)
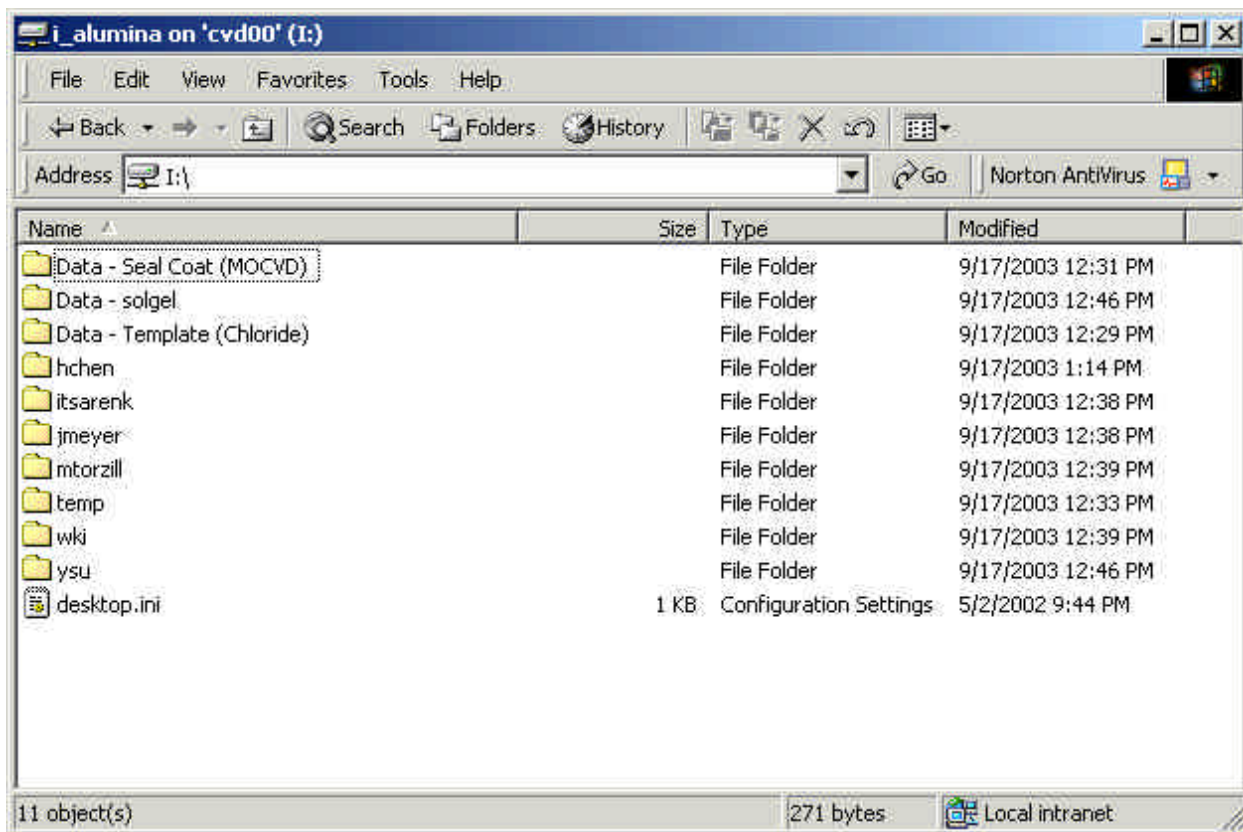
The organization of data within the data folder(s) on your project drive must be logical, understandable by those not on your project (for new people who join later), and *strictly enforced*. All members of the project must come to an agreement as to how the data is organized so everyone knows where to put newly acquired data and to find old material. There are many options for this, some of which are implemented in the example below.

A starting point for file and data organization by your group should cover the following areas. Do you want to organized data by experiment, date, or other method? Does analysis get organized by type (SEM, TEM, XRD, etc) or kept with sample / run files? Does each sample get it's own directory or are sample organized by type / substrate? Where do group-wide files like experimental plan or system schedule go? There are many other options your group must discuss.

Other considerations include keeping a photo 'journal' of your system and modifications, component manuals and documentation, experiment / project plans, system maintenance schedules, et cetera.
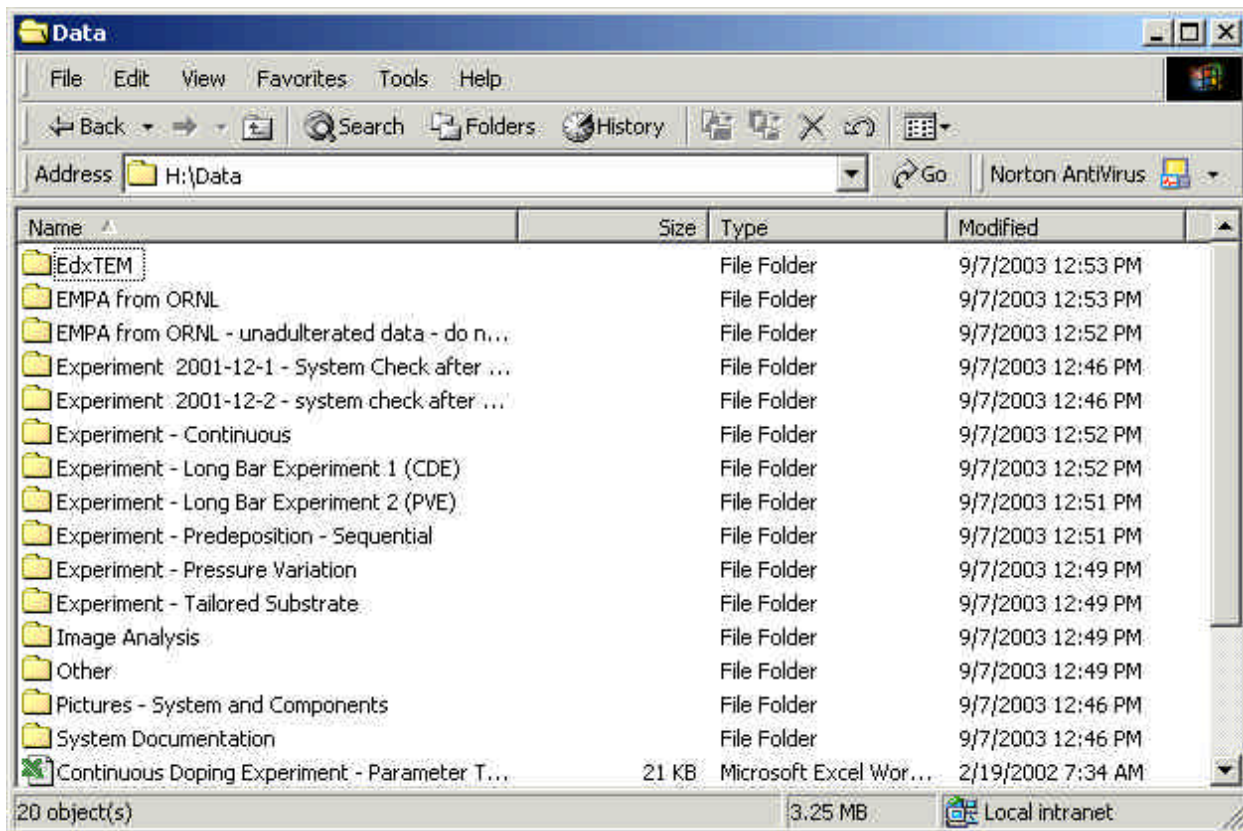
Each user also has their own folder, by username in each project drive. All 'personal' files go in here: grad school paperwork, progress reports, letters, resumes, extra slides for future presentations, proposals, and all the other stuff associated with 80 hour work weeks. Works in progress (like presentations and papers) should also remain here until such time as they are moved to the Archive drive or data folder.

No data / file / presentation / paper which is not currently being edited or analyzed should be kept in your user folder. The size (excluding really large presentations or papers) of your user folder should not exceed 100MB. If it does for a while, let the computer manager know before he hunts you down for an explanation. ☺

All members of a project can read, change, and delete all files and folders on that drive. While it is a matter of courtesy that you don't go into another user's folder without either permission or great need, please remember that truly private information should not be stored on any network folder. In addition to being viewable by other project users, such information may survive for a year or more in system back-ups.   "Personal" files include such information as: medical, financial, family, investment, *et cetera*.
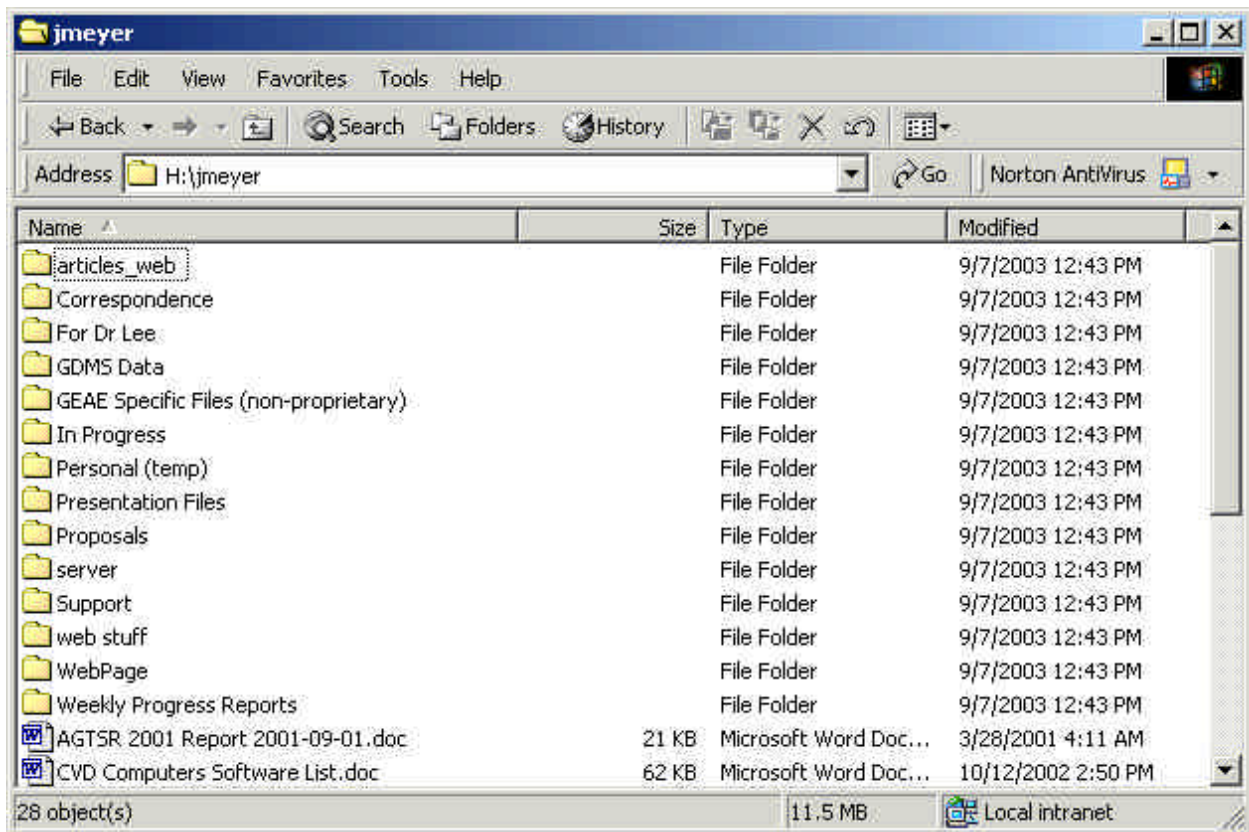
File Security and Integrity:

The stability and security of the CVD00 server can not protect users from themselves! To wit:

When you leave a computer, you *must log off!*. Otherwise someone can delete your (and your project colleagues') files. Worse yet, some guest might accidentally make a change and save it before closing…then you might never know your data was incorrect! If you are coming right back, choose the "lock computer" option from the log off menu. This is critical to good *physical* system security.

All data on old Windows folder shares must be transferred to the appropriate project drives and the windows shares disabled. Folder shares are another highly vulnerable point through which some viruses and malicious programs may take advantage and gain access to you system and our local network.

If a virus gets onto a Windows machine, it can infect files on the server and spread the virus to other computers / users. Almost no Windows viruses can affect the server itself. If a virus on a windows machine decides to delete all files on local and your network drives, it can! You must protect each computer from which you log in. Lab computers are protected by lab copies of Symmantec's "Norton AntiVirus" software. For your own computers, you must either purchase your own software or install a copy of the McAffee antivirus software covered by the Stevens site license. This may be found on Stevens' ftp server "netsrv".

Never disable the anti-virus software on lab computers or on you own.

Do not install software which operates with "administrator" privileges all the time. While most software installed on Win2k/XP machines needs an administrator to be logged in, it does not need to run with those privileges. If the option is provided, make sure to tell the installation to make the program "available to all users".

Do not let other people use your account. Any mistakes they make will be your fault. There are no guests on our systems. Any future guests will need to be approved and set up by the computer manager.

Do not re-share mapped drives as shared windows folders. This only creates another vulnerability in the system. Use the q_transfer drive to share documents. Otherwise, use a "Zip" disk or USB memory 'drive'.

The desktop of each machine is cleared bi-weekly, do not save documents there.

There is no network "Recycle Bin". If you delete it from a server or project drive, it is gone.

A full backup of the network drives ocurrs weekly—usually between Friday and Saturday. If you lose or delete a file, the most recent copy at the time of the last backup is what the computer manager can restore for you. Restoration of files usually requires about 2 business days. If you

have any critical files, use a 'zip' disk or your hard drive to make a daily backup. See the computer manager to obtain disks.

Suggestions (Requirements, really):

Work on files from the server—your locally mapped drives. This prevents multiple versions of a file being created or open at the same time. Trying to merge two files with different changes is practically impossible. Working off the server also means when someone accesses a file, they can be confident 1) everyone else is working from the same information 2) any changes they make will be complete (no other copies to be hunted down and changed) and 3) they will have the most up-to-date version / information.

If you are working on a very large file (over 30MB) and saving it frequently, it makes good sense to copy the file to your local computer and work on it there. All the saves and frequent accesses to such a large file will create lots of network traffic which could otherwise be eliminated. This will also speed up file saves significantly. At the end of the day (or when done), save the file back to the project drive.

For optical microscopy, jpg files are fine (set them around 75% quality). For SEM and TEM, try to use black and white TIFFs at 1024 by 768 pixels (about 1MB in size). This is a good size and quality level for printing out journal-quality pictures for papers. If you are taking representative, example, or a bunch of micrographs, the "jpg" format is preferred to save space.

No software or hardware may be installed or modified on **any** "public" lab computer without the explicit approval of—and over-sight by—the computer manager.

Printer(s)

The network printer, connected directly to CVD00, is for use by all group members whose desk resides in the B-308 office / lab area. For all other users, it may be considered a backup printer.

Installation must be performed on each client machine using the "add printer" wizard. Use network printer \\cvd00\hp4000 (all zeros, no letter 'O') and the windows driver for HP LaserJet 4000 PS.

If you open the last ream of paper in the drawer under CVD04, go to the department office and obtain 3-4 more reams from Barbara (or Pat). If you refill any of the printers with other supplies (toner, ink, transparencies, *et cetera*), get or buy more!

Do not ever disconnect the printer from CVD00 if you have problems connecting to or printing on the HP4000. This can cause harm to both the printer and the server. Try printing a test page

first, or another document to see if you can isolate the problem. Once you have tried this, contact the computer manager.

Closing

With these thought in mind ad you lay out your project drive structure and maintain your data, you will be assisting the other lab group members and the Computer Manager in keeping the server secure and clutter free. Remember that if you are ever unsure of an action or its repercussions, contact the Computer Manger before acting.

Project Drive Users

In addition to the permissions listed below, the "computer manager" (compmgr) account has access to all shares.

Project folder	Users
g_username	restricted folders for administrative storage as required by user(s)
h_***	specific users, as required
i_***	specific users, as required
j_***	specific users, as required
k_***	specific users, as required
l_labfiles	all users have "read/write" permissions
m_	
n_***	specific users, as required
o_***	specific users, as required
p_***	specific users, as required
q_transfer	all users have "read/write" permissions
r_	
s_sourcefiles	all users have "read only" permissions
t_***	specific users, as required
u_***	specific users, as required
v_	
w_***	specific users, as required
x_archive	all users have "read only" permissions
y_oldprojects	compmgr only
z_reserved	none