Tips and Tricks
for the
Apple Network Administrator
Toolkit
(ANAT)
Version 2.0

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Background

In June, 1996, Apple released ANAT - the Apple Network Administrator Toolkit, version 1.0. It consisted of three primary components: At Ease for Workgroups 4.0, Network Assistant 2.0, and User & Groups Manager 1.0. Each of the tools was designed to lighten the administrative load of the manager of a predominantly Apple-based network. At Ease for Workgroups provides server-based storage for all users on the network, as well as a range of desktop security measures to help maintain system integrity. The ability to assign users to specific application/curriculum based workgroups is a major strength of At Ease for Workgroups. The Network Assistant is both a management and teaching tool. It allows the user to configure and control multiple workstations, as well as share screens, remote launch applications, and respond to end user requests for assistance over a network. The User & Group Manager is designed to allow a network manager ready access to multiple servers and their associated user/group files. The ability to copy/paste or import/export users from one server to another is this program's major strength.

Version 1.0 of this tool set was not without its glitches and wants. First, and foremost, was that all services for all of the components worked over the AppleTalk protocols only. This forced network managers into routing AppleTalk if they desired to access information on workstations outside their local area network. Secondly, several system-level items on workstations could not be easily changed remotely, forcing network managers into physically changing such things as workstation names at the individual machines. Finally, (and this is only my list, I am sure others have their own list of wants.) there were several management options missing from At Ease for Workgroups, including the ability to require an administrator password for younger students to print. Finally, overall speed of At Ease connections needed to be brought up a few notches.

In June, 1997, Apple released ANAT 2.0. This version addressed virtually all of my issues (this is, after all, my wishlist....) and added some new features that show just where the realm of Apple-based network computing is headed. These new features included support for TCP/IP in most of the components, addition of new controls allowing managers to change machine names, IP addresses, and Internet configurations, and dramatic speed increases. Since AppleShare IP (ASIP) was released at the same time, the ANAT team was able to use the significant speed increase of ASIP to make all of the portions of ANAT 2.0 much more responsive. Pretty cool.

What does all of this mean to you and me? It means that managers of Apple-based networks have some pretty serious tools in their kit to configure, manage, secure, and control their MacOS-based servers and workstations. Without hiring a consultant; who, knowing nothing about Macs anyway, would tell you you needed a Novell or NT server - and, for a fee, they'd be glad to manage the entire network for you. Not.

The goal for Apple K-12 has always been to provide educators and their support personnel with the best and easiest to use tools in the industry. The Apple Network Administrator Toolkit fits that goal.

The Admin Stuff

Last year, I wrote version 1.0 of the Tips and Tricks to help the Apple filed people demonstrate the new product. Since then, I have had countless requests for a copy of the "1.0" (actually, 1.2 with revisions) T&T doc to help schools set up their networks. Instead of producing a sales based paper this time, I decided to focus on the planning, configuration, and management issues that arose during both beta testing and production usage of ANAT 1.0 and 2.0. The original document was also loaned to the Apple documentarians to revise for more 'official' publishing status. This document may also achieve that notoriety; but just so I can maintain some of the originality - I use different abbreviations and acronyms that the official documentation teams don't. Here they are -

AEFW - At Ease for Workgroups (official TLA > AEW)

ANA - Apple Network Assistant (official TLA > ANA - yes, I adopted theirs)

UGM - User and Group Manager (official TLA > U&G)

ASIP - AppleShare IP (In this paper, I will use AppleShare IP 5.0.2 or better for all server configs)

TLA - Three Letter Acronym

The configuration for my environment is much smaller than the average school site (well, I may have more servers - :-o); but I will try to mention scaling issues where needed. I have noted cool tricks, problems or really obvious (to me) gotchas marked with one of these < ☺ ☹ ☹ > at the beginning of the paragraph. (For the trivially curious, these are "JKL" in Wingdings font.)

I would appreciate any feedback from inside Apple or the user community on improving this document, so feel free to contact me at: detroye1@apple.com anytime.

Anyhow, this paper was designed by me to add to the documentation that came with the Network Admin Toolkit. I will, where possible, reference the locations in the "real" manuals for further information than I may provide. The contents of this document have come into existence over the past year or so as I worked with ANAT 1.0 on up to 2.0 with several beta add-ons as I went. It isn't designed to replace the actual documentation - just to provide tips and tricks I have learned, or have been sent, to help network managers get up and running sooner. Most of all, this paper is meant to help you avoid some of the pitfalls that come from some old, in-grained habits of early AppleShare/At Ease managers. Hope at least some of my ideas help.

John DeTroye 27 October 1997

Planning and configuring a secure network - At Ease for Workgroups

I'll use three configurations for this - each scaling up from the previous. Let's start with the smaller network.

At Ease for Workgroups - Small Network

I. Server Configuration:

    a.Setting up the AppleShare servers correctly is the most important step you will have to complete in the entire process of getting your network up and running under At Ease for Workgroups.

    b. Decide how many AppleShare servers and "share points" you will need. This means looking at the total number of computers on your network, and determining how many of them you want attached to your servers at any specific time. A good rule of thumb is to have one At Ease log-in server for each 50-150 workstations, depending on your budget. Speed is the difference here. Does this mean that you can't have 250 workstations logging into an AppleShare server? No, it just means that reality checks in here - and over 150 workstations on one server can slow your users down a lot. It works, just not very swiftly. The other point is to determine where your users store their documents. With AEFW, you can have users log into one server and get sent to another for all of their documents. This can be a major network speed enhancement for larger environments. Finally, look at network mounted CDs and other volumes mounted for other uses. Examples are shared CDs for library research (SIRS, etc.) and a web folder with the school web pages for editing.

II. Server setup - small network - less than 150 workstations, one AppleShare server. This network is typical of most schools at the moment in my area. A few labs, an administrative area, and teacher workstations scattered through the building. The single AppleShare server will consist of a share point used by At Ease and another share point for general user access. Here's my basic server desktop:
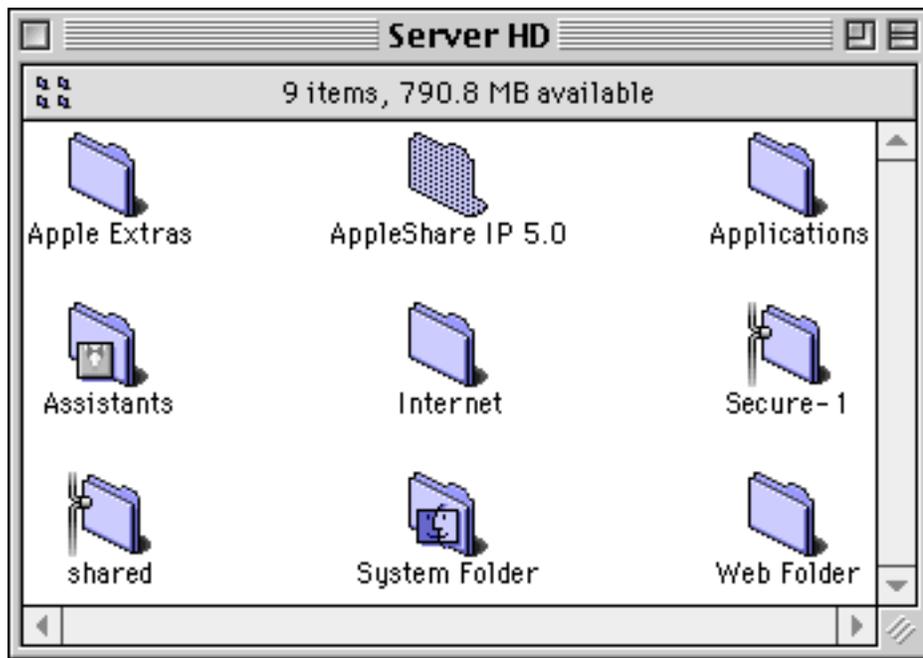

Note that I have shared two folders - "Secure-1" and "shared". The Server HD is NOT globally shared for access. This is <u>critical</u> in that you should never (never, never, never....) share the main server hard drive with the rest of the

world. The admin/custodian account always has access to the contents of this drive; so it does not need to be shared. At Ease will use the "Secure-1" folder for its access point. Here's the AppleShare Admin config screens:
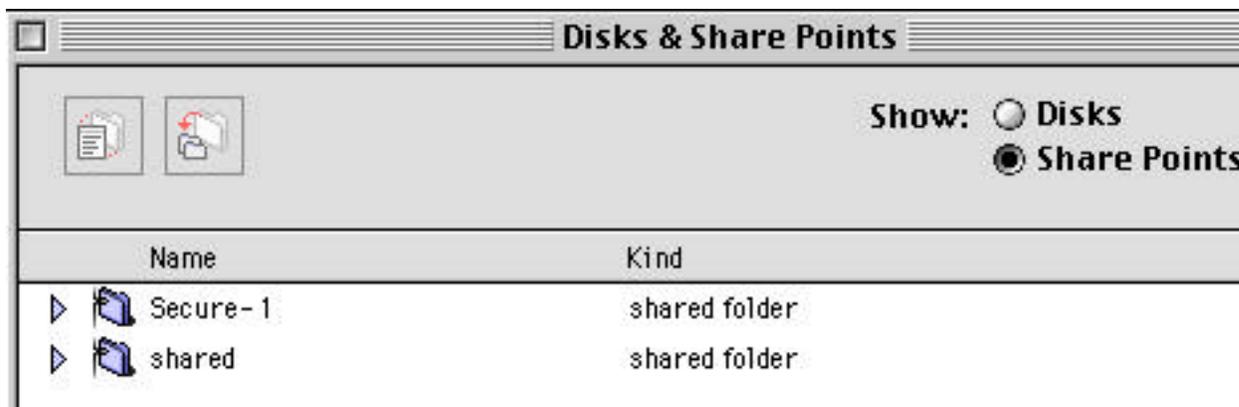
☺☹ First, create and share the two folders. Then create a master account to be used by At Ease when logging in. This is important! If you elect to share the main At Ease folder with the Admin or Custodian account as the sole owner, then you are opening up your AppleShare server to serious security problems! Users will be logged into the AEFW system with this special account - if it is the superuser/admin account, then when the user looks into the Chooser, they will already be connected to the server as its owner. Not a good idea. Here are the config screens:
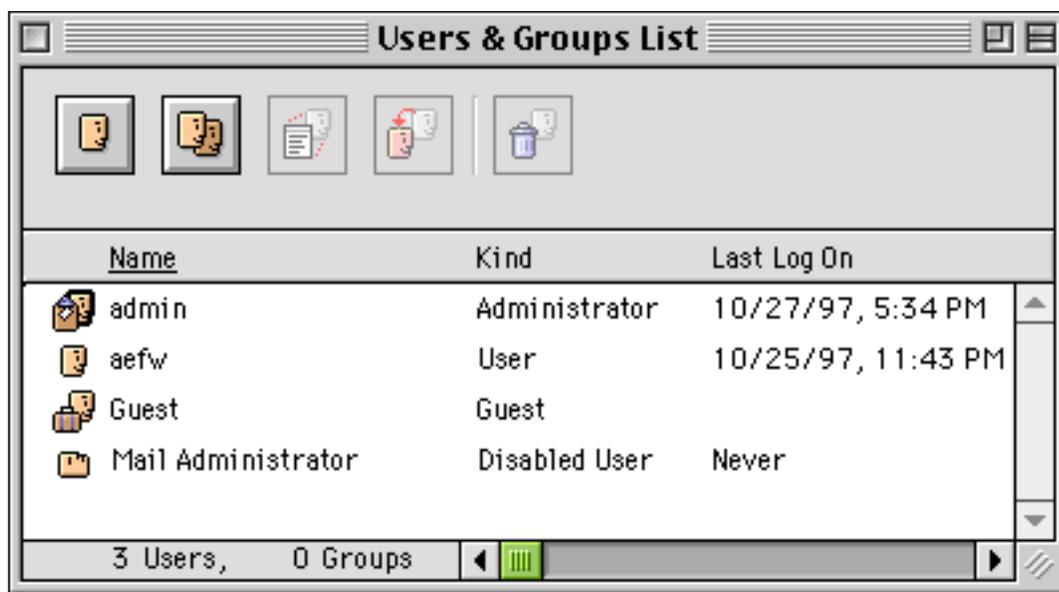
An account, in our case, "aefw" (Clever, huh?) is created as the master At Ease account. All ASIP log-ins will be done through this account. Since we are not going to be tracking usage of the system by AppleShare users, but by At Ease users, having multiple instances of the aefw account logging into the ASIP server will work fine.

Next, we select and assign sharing privileges to the "Secure-1" folder. This folder will be used by AEFW for storing all configuration information, user documents, and any group or global folders we decide to use. As we move away from one server to multiple log-in or multiple document servers, this folder will still contain the primary configuration information, such as user log-ins, passwords, etc. Note that the button selected is the "Make this a share point and set privileges" button. If you had accidentally shared the entire server hard drive, you would get an error message at this point, telling you that this folder is inside a share point. If so, go back and un-share the hard disk by selecting it, and checking the button "Use enclosing item's privileges" for the Server HD.

Now we go into At Ease Administration to continue the configuration.

III. At Ease Configuration - small network

☺   a. Before beginning to configure your entire network, configure at least one master workstation first. Many network administrators, tech coaches, etc. all have juiced up systems (if you don't, why not?) for testing and working on many, many projects. On the other hand, the average user will have a system without quite so many bells and whistles. In order to avoid serious problems with your users configurations, do one of the following - a. set up your master station the same as the average system on the network, or b. use one of the lab systems to run all of your administrative functions, or c. a little of both. I vote for c.

First, name your hard drive something simple, like "Macintosh HD" - yes, I know it is boring, unlike "Darth Vader's Home Base"; but it will avoid a common problem with a lot of educational applications that are path dependent. This means that many applications, especially the ones belonging to research CDs, require a specific path (HD:Apps:My App) in order to function. Copy the application to another system with a different hard drive name, and you have (My HD:Apps:My App) which is different, resulting in "Application can't find index files" or some such error message. So avoid the problem up front.

Second, install and test every application you can on the master station. If you have a few specialized apps running on high end workstations, like PageMaker, then make sure those workstations are functioning correctly. If the

stuff doesn't work in a non-At Ease environment, it sure won't work with At Ease turned on.

Third, using the Chooser, select and create every possible desktop printer your users will have access to. Even if you won't be using all of those printers, you'll need to have already created the desktop printing icons for all of these printers before you can add them to an At Ease configuration.

☺ Finally, mount any server volumes you will need to have access to when your users are in At Ease workgroups. This does NOT include the special At Ease volume (in our case > Secure-1). It does include any networked CDs, general storage volumes, and remote servers used for special workgroups, such as the Yearbook committee. Log into each of these remote volumes using whatever account you need; but note that if any of these volumes are on the primary AEFW server, you need to log into them with the aefw account. If you can't, then go back to the server and change privileges for that volume to allow this access. Since your users will already be logged into the AEFW server as 'aefw', if the server needs a different username to connect to another area of the server, it will be refused.

b. Launch At Ease Administration. If it is your first time in, you will be greeted by a series of dialogs telling you that your At Ease Server has not been configured for use. Follow the instructions to get the server set up, then you will get the At Ease Setup Helper window. I will describe how to configure the At Ease server regardless of whether you are in the Helper or the regular Admin program.

☹☹☹ Critical Note! If, when you go to connect to your At Ease server, you get this dialog:
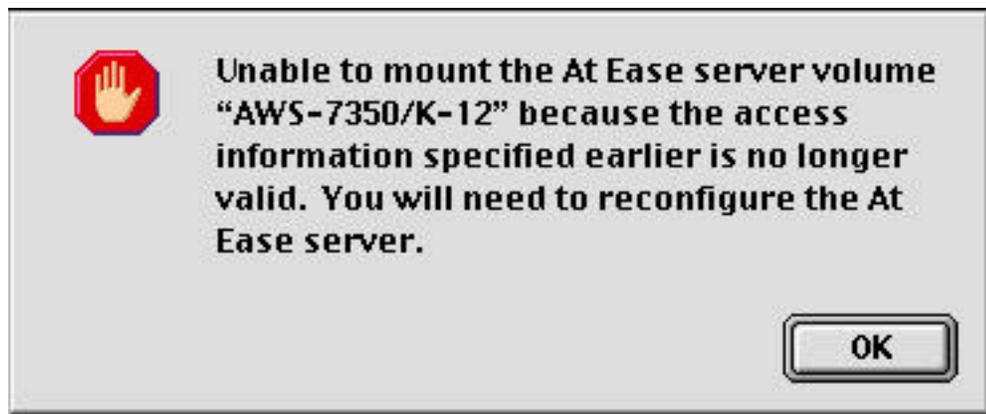
DON'T PANIC!

All it means is that you either tried to connect to the wrong server (note the server volume name), or you accidentally mounted either the designated At Ease folder already on your desktop, or another folder from your AEFW server with a different log-in name. Just check out your desktop closely, and remedy the situation. The system will give you a dialog box to let you move on either into this server (where we didn't want to be) or to select another server. In our case, we select a different, the correct, server.
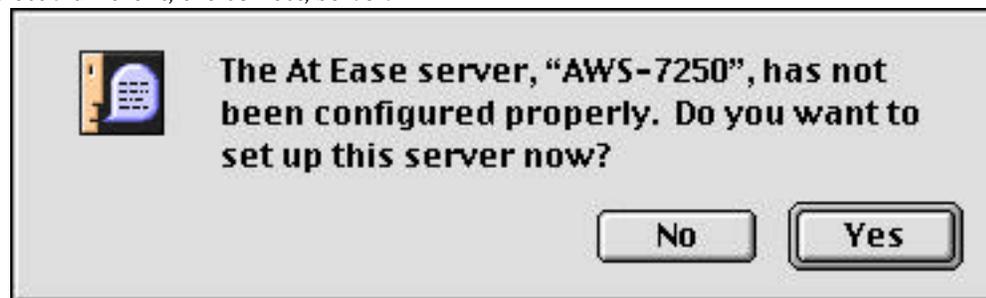
First time administrators get the above dialog box. If you have already configured your server, click "No" or else you will trash all the work you've already done! When you select "No", you'll be given the chance to select from all the servers on your network running AppleShare with the correct At Ease server components installed.

At this point, we should be presented with the At Ease Setup Helper window. If you are still getting odd dialogs, back up, quit everything, and dismount all remote volumes. You can always go back later and add in other items; but if you don't get properly connected to the At Ease Server volume/folder to begin with, nothing past this point will work correctly.

With that window open, select this icon:

Click this button to select an AppleShare server and At Ease server volume.

Or, if you are in the regular At Ease Admin window, select "Configuration:At Ease Server…" from the menu bar.

The dialog box we go to now looks like this:

At Ease Server

Select the AppleShare volume you want to use as your At Ease server volume and select how you want to log in. If you select Registered User, you need to enter a name and password for an AppleShare user with write access privileges to the volume.

AppleShare Server:
AWS-7250

Volume Name: Server HD ▼

Log in as: ○ Guest
● Registered User

User Name: [   ]

Password: [   ]

Cancel   OK

Note that we are asked to accept the 'Server HD' as our At Ease volume name. This is not correct; so click and hold on the pull-down with the volume name, and select 'Secure-1' as our At Ease volume. Then type in the special account name 'aefw' and password (what did you use?) in the lower boxes. For some reason, the At Ease team lets us select 'Guest' as a bonafide user for that volume. If you happened to give guest access to your At Ease server volume/folder, you have just given everyone on the network access to everyone else stuff. Fix that, and move on. Your

window should look like the following:
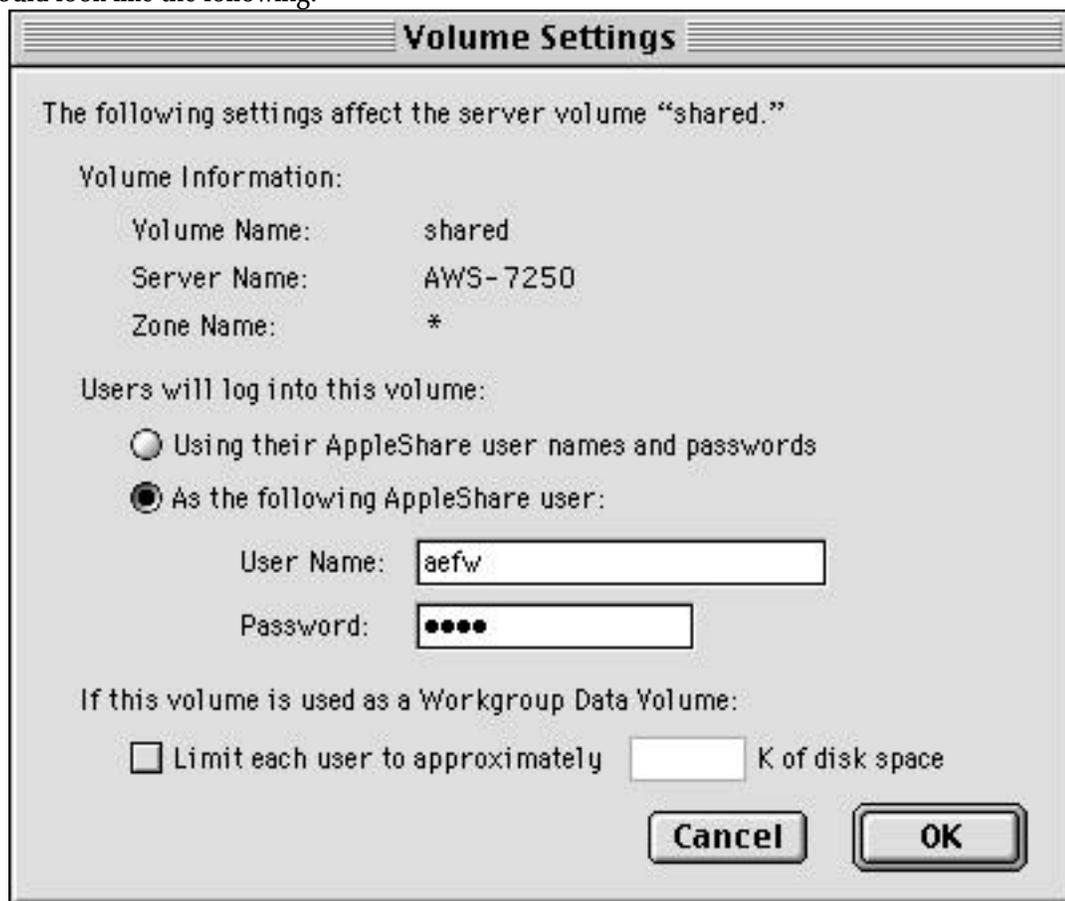
c. At this point, we can move on to adding users, workgroups, etc. The manuals cover this very well; but here are a few tips.

☺ In the Workstations dialog, go ahead and attach all of the workstations you want to be assigned to this server BEFORE you install the At Ease client/workstation software. This way, you can mess with the configurations all you want, until you are ready to go online, and you won't be forcing the users to see constant changes happening to the configurations as you test them out. Once you have deployed, either turn off At Ease when you are going to be doing a lot of changes, or work when few users are online.

☹ Do NOT attach any servers to the At Ease workstation list - much less install the workstation software on any server. That will wreck your servers, and cause you to be not very happy or well liked.

▦ This icon in the workstation window means that machine has the correct version of At Ease installed and is ready to play nicely.

▣ 'This icon in the workstation window means either that workstation does not have the At Ease client software installed, or that it is not currently running At Ease. If the icon in the left window shows ▦ ; but the one in the right window for the same workstation is plain, then the workstation has the software installed, it just hasn't been restarted to activate the At Ease configuration yet.

☺ Create a special account that owns all of the workgroups, and has administrative access. I use 'Admin' for my special account, and I maintain a workgroup administrator account for myself for normal use. The reason for this is that the Admin account can bypass everything, and make broad changes. During a normal day (ok, so there aren't too many of those...), I use my workgroup admin account 'John DeTroye' to log in and work. This way, I recognize the difference between access to the system for administrative purposes, and day to day operations.

☺ I also create a special 'Finder Only' workgroup for my 'Admin' account to log into. This is the only account that goes to the Finder. You'll find very few, if any, needs for the average user to get to the Finder.
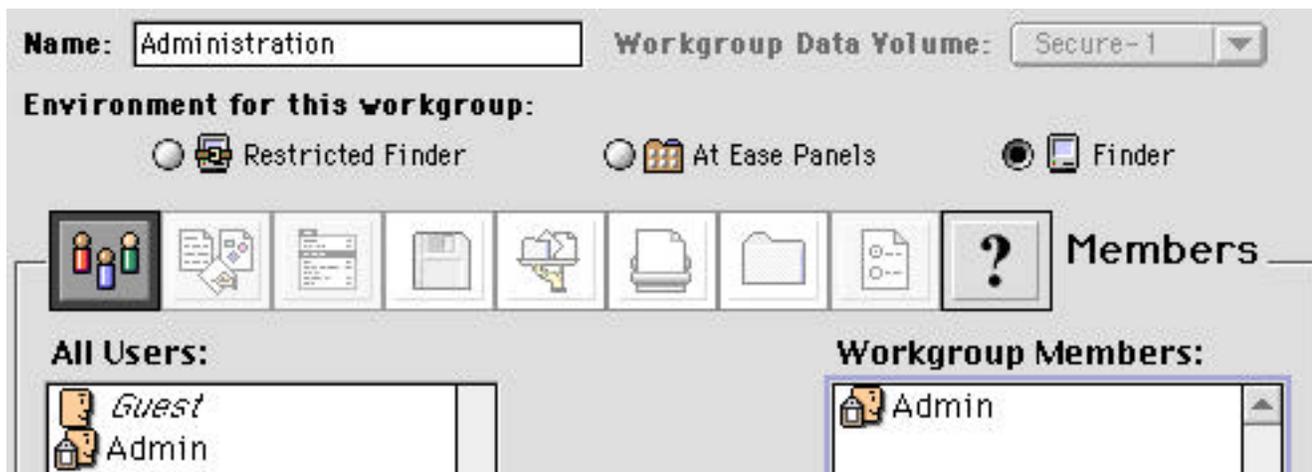
Most of the time, it is someone who just wants to install something. Like the latest virus. Yes, you can give others access to this workgroup; but with the restricted Finder most users can function very well.

☺ Create one workgroup with all of the applications you use on your machines in it. This gives you a workgroup to clone from, and can be easily used as a simple restricted Finder workgroup where everyone assigned can just use all of the applications. Without giving them full access to the Finder.

    d. Special administration hints.

☺ The number one way to speed up your At Ease server log-in times is to select "Users type their names" versus the default of selecting from a list. When you have "Select from list" checked, the At Ease workstation must download the entire user database from the server. This takes a while under all but the smallest of networks with only a few users. This operation alone can save you tons of trouble and lots of calls from users saying it takes too long to connect to the At Ease server.

☺ Logging out users who are idle (versus logging out users who are lazy...) helps maintain security. Be careful here, since you may have a screen saver or Energy Saver running, you need to have the At Ease log out time shorter than that of the screen saver. If your Macs go to sleep in 30 minutes, set them to log out of At Ease in 20 minutes or less.

User Security

Select settings that apply to every user of this At Ease system. (Changes to some password options may not affect existing users.)

Password Security

☐ Users must change their password every `30` days

☒ Minimum password length is `4` characters

☐ Prevent easy-to-guess passwords

☒ Disable a user's password if it is incorrectly entered `4` times

☒ Log out a user who does not use At Ease for `15` minutes

[Cancel] [OK]

Energy Saver

[icon] **Sleep Setup**   [icon] Scheduled Startup & Shutdown

Put the system to sleep whenever it's inactive for

☐ Shut down instead of sleeping.

30 min   40   50   60   Never

☑ **Separate timing for display sleep**

5 min   10   20   30   40   50   60   Never

Also, in preparation for using the Network Assistant, letting the screen go to sleep; but keeping the rest of the system running, is a very good idea. More on that later.

☺ Printer settings are important. Don't forget to set limits on those printers that need to be watched the most. There are two places to manage these settings. The first is in the "Configurations:Access to Printers…" dialog. The new 5.0 version of AEFW lets you designate limits by log-in, or by time period.
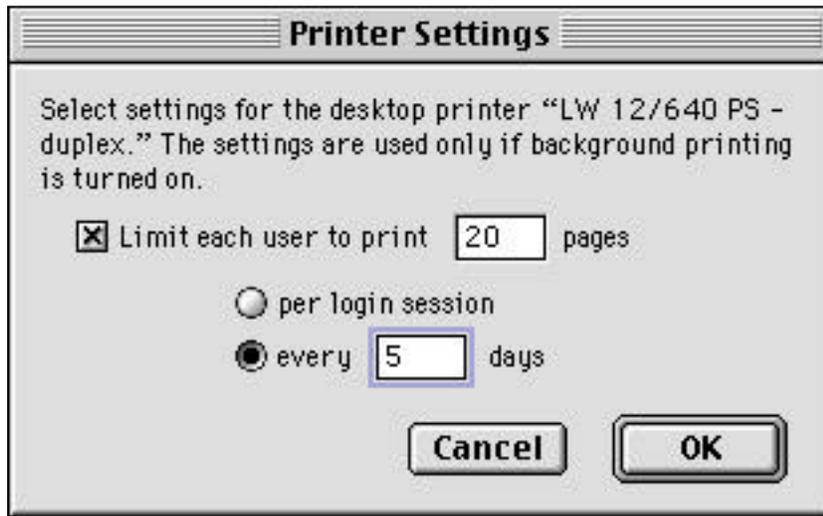
Then, in a specific workgroup, you further set limits, to include requiring an administrator or workgroup administrator password to print.
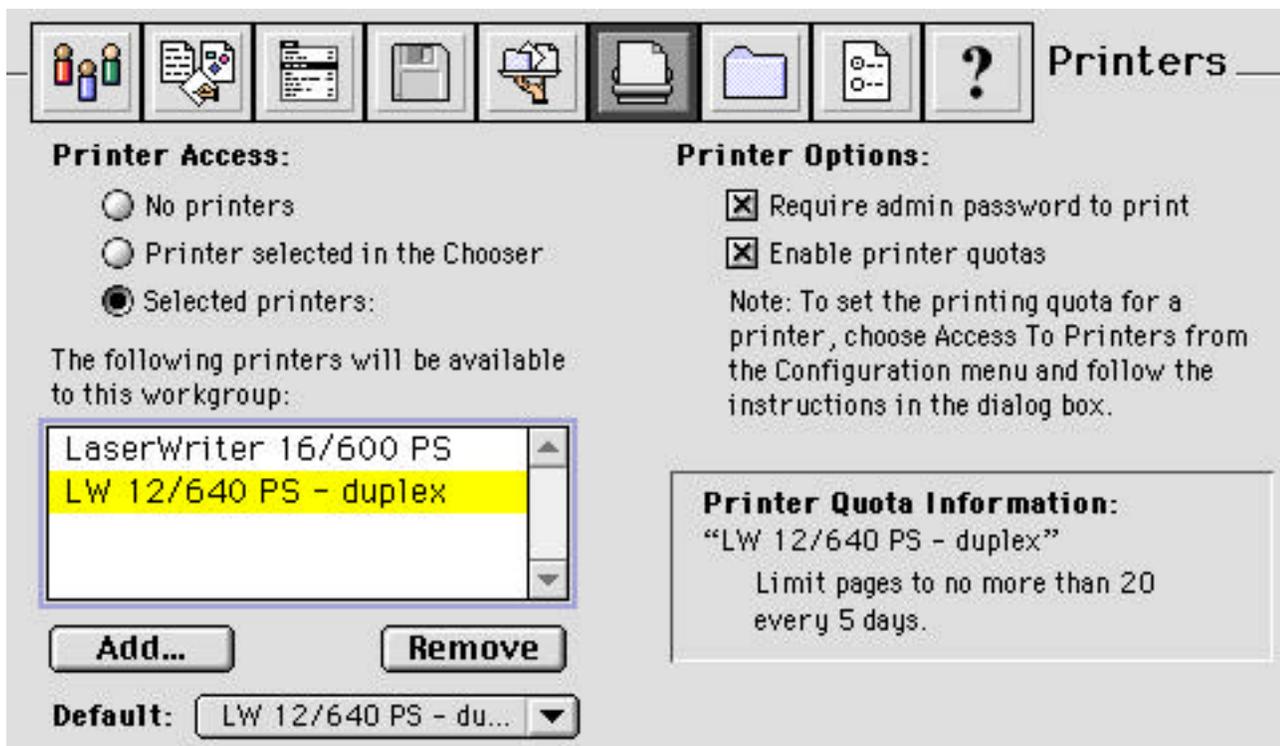
e. Using the hints provided and having followed the requirements in the actual documentation, you should be able to set up a basic set of workgroups. Now is the time to test each of the basic settings by logging into each of the workgroups, both as the Administrator, and as a regular user. Always test your configurations! Now, on to more complexity....

At Ease for Workgroups - Medium Network

I. Server Configuration:

   This network will draw on the settings from the basic network. In this case, we will stick with a single server; but add additional share points and services. This configuration will include shared CDs and other share points that auto mount when users log into selected workgroups.

II. Server setup - medium network - less than 150 workstations, one AppleShare server with CD tower.

   a. Basic settings are enhanced by pre-configuring additional share points on the ASIP server. Here's a screen shot of the additional mounted volumes:
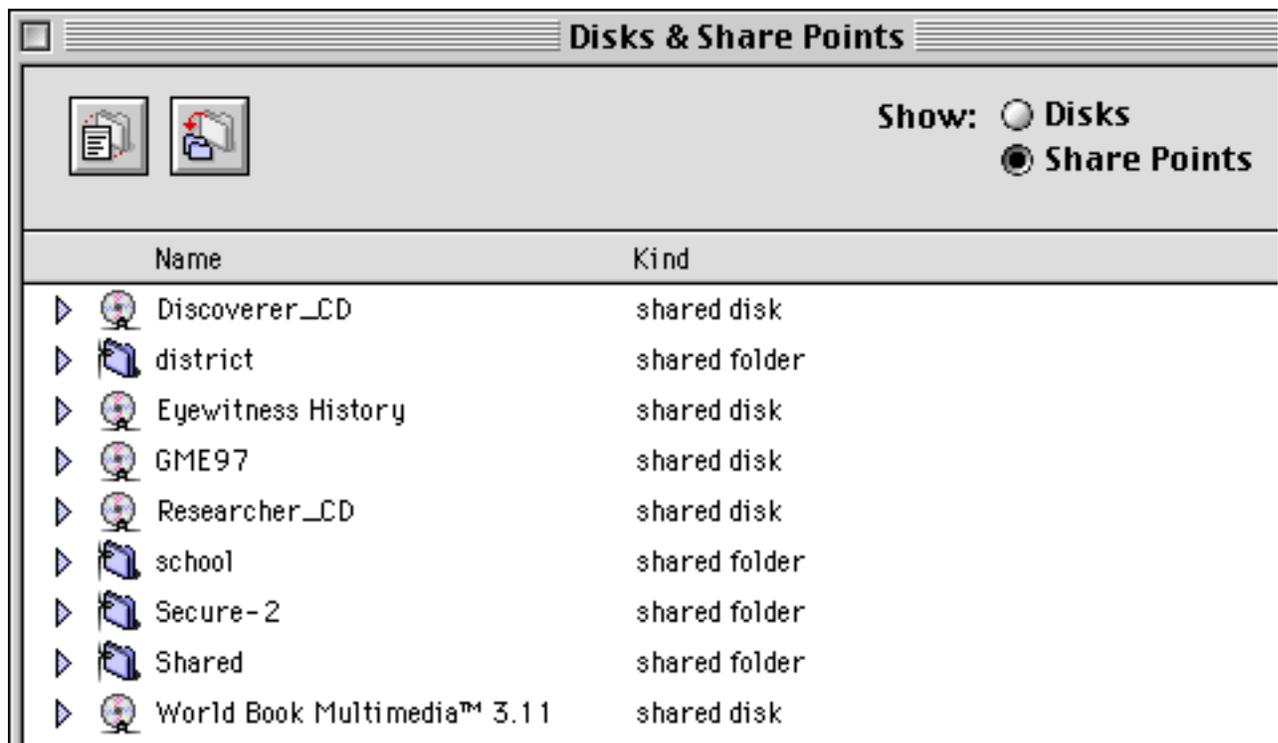
   The additional share points can be configured in several ways. The easiest is to continue to follow the convention of assigning access privileges to the master AEFW account - 'aefw' to read the shared item. This way, the share points can be selected to be automatically mounted as needed, without requiring the user to respond to multiple AppleShare login dialogs. In this case, there are several additional share points for this configuration. Using a CD tower, several research CDs are mounted and shared to be used in a workgroup where any user on the network needs access to these materials. This relieves the media center/library from the responsibility of maintaining a separate client/server environment dedicated to that task. Since, in many cases, it also means a system with proprietary services and workstations, this network solution provides a much easier to maintain and broader access for all of the network users. AppleShare IP servers can easily share MacOS and Windows/DOS CDs on the network; therefore, this configuration will easily support multiple platforms. The other share points are within the AppleShare IP web folder. Each of the additional folders shared contain the web pages belonging to the various areas served by the network web site. A workgroup for the web designers is created allowing them access directly into these folders for editing and creating web pages.

The screen shot below shows how one of the CDs is configured for sharing.

Privileges: Researcher_CD

Select Privileges

○ Use enclosing item's privileges
○ Set privileges for this item
● Make this a share point and set privileges

Show Users & Groups List

Owner: Admin

User/Group: aefw

Everyone:

Make all enclosed folders like this one

☐ Can't move, rename, or delete this folder

Revert   Save

b. Within At Ease Administration, enhancements are made as follows:

Approved Server Volumes:

Discoverer_CD
Eyewitness History
GME97
Researcher_CD
school
Secure-2
Shared
World Book Multimedia™ 3.11

Add Volume

Volume Settings

Remove Volume
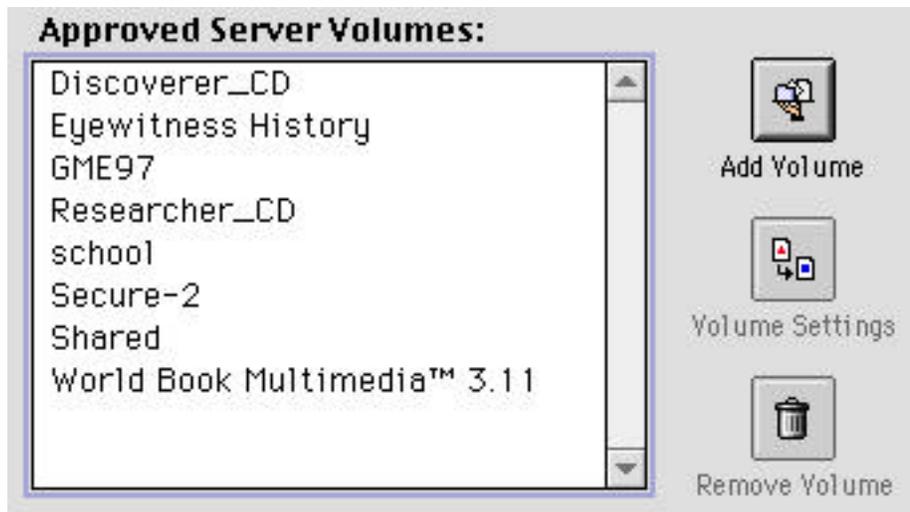
The additional volumes are added to the 'approved' list. Logon to each volume is set to 'aefw' logging in. Also, since the network is getting larger, we will set storage limits for the users at this point. AEFW allows a disk limit for each user to be set up to 64MBs per server volume. For our purposes, we will limit each user to 10,000k of space. If a

user exceeds this point, the system will merely lock their document folder, restricting them to read only access until they remove some items. Here's a screen shot of the disk limits:
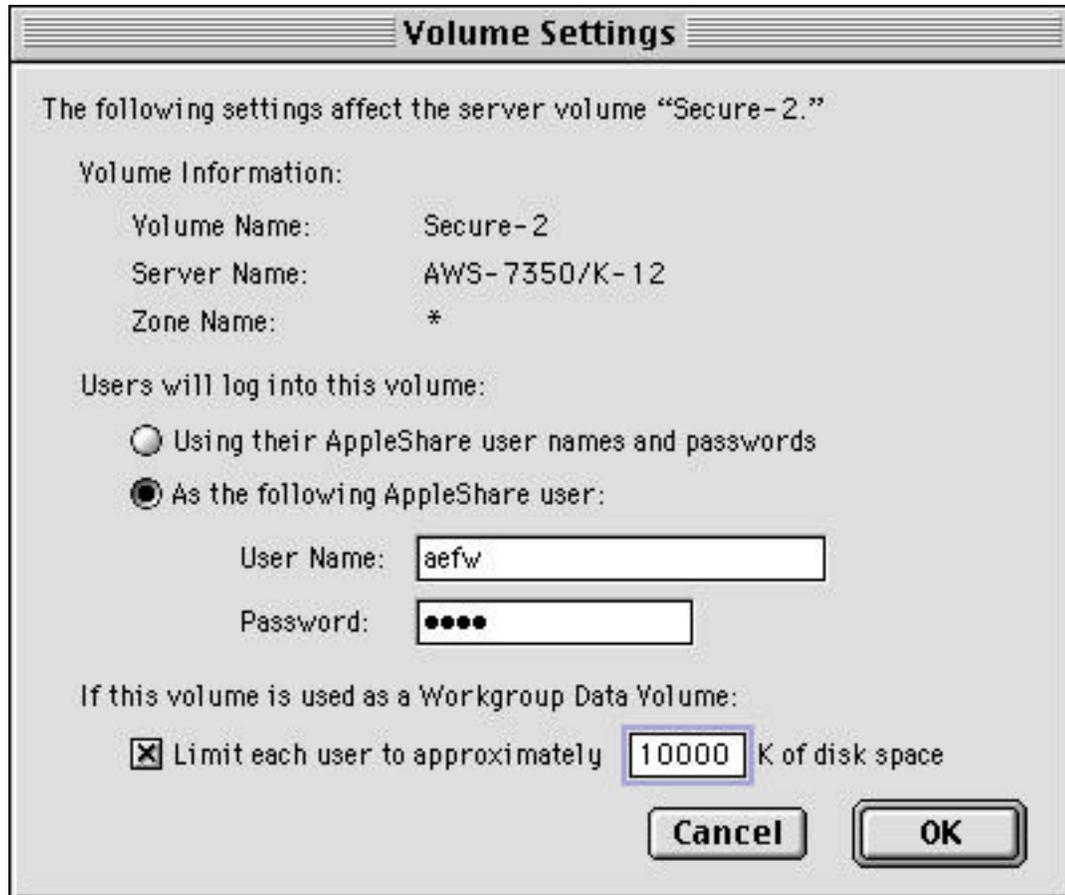
The Research Workgroup can now be created. This workgroup will contain the primary applications needed for research and report writing. It must contain access to each of the applications needed to access the remote CDs, as well as automatically mounting the CDs. For this workgroup, I am using the Panels interface. It restricts the users, focusing them on the task at hand - log in, get your research material, add it to your reports, and log out. This cuts down on network bandwidth being used to maintain connections to each of the networked CDs, and avoids a common problem of users selecting CDs to be auto mounted every time they turn their computers on. Here are the appropriate settings:

The following volumes will mount on users' workstations when they log in:

Discoverer_CD
Eyewitness History
GME97
Researcher_CD
World Book Multimedia™ 3.11

Workgroup volume quotas:

☒ Enable disk storage quotas for volume:
    "Secure-2"
    to approximately 10000K of storage.

Note: To change the disk quota amount, use the "Access To Volumes" menu command and edit this volume.
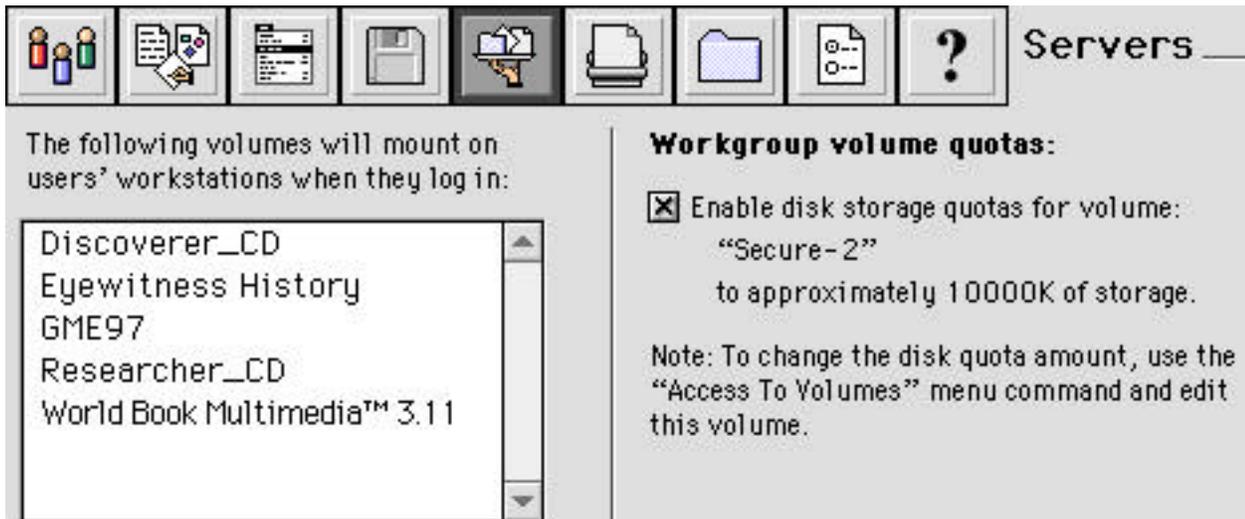
The remote volumes are selected to mount at login; the applications are installed on the workstations, except for one. "Eyewitness" is launched from the mounted CD. The application itself is set within AppleShare Web & File Admin to allow only one copy to be launched. This is because the specific CD is not a network license CD; but a single use CD. Sharing it on the network; but restricting access to one user at a time, gives the CD wider access, still within legal bounds.

Items For This Workgroup:

ClarisWorks
Discoverer
Eyewitness History of the World
Groliers
Researcher
World Book
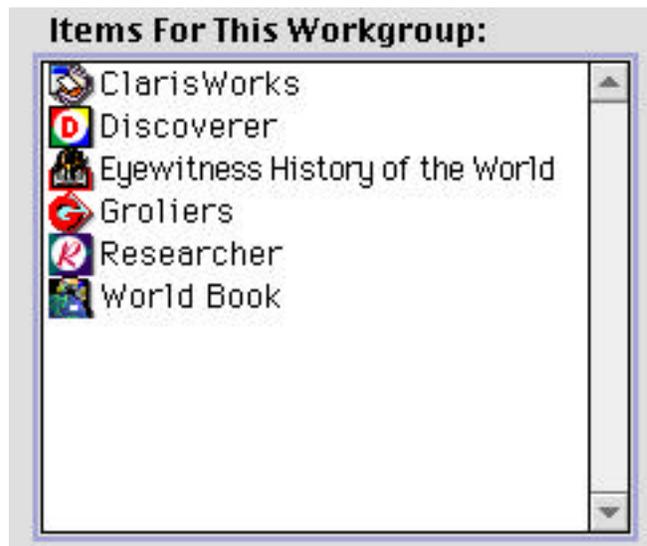
c. The additional enhancements include setting up the ability of teachers to allow students to electronically submit work. This feature is called the "Hand In" folder. It is specified in the At Ease Admin program, within the Locations item of a workgroup:

Locations

Allow members to open and save documents in any location
Allow members to open and save items in the following locations only:

Location	Members may:	
User Documents Folder	☒ Open	☒ Save
Removable Media	☒ Open	☒ Save *(except CD-ROMs)*
Workgroup Shared Folder	☒ Open	☒ Save
Volume Shared Folder	☒ Open	☒ Save
Workgroup Hand In Folder		☒ Save

Users can select an item from their documents folder, and copy it into this folder. Note - within the Restricted Finder workgroups, copying a document into this folder requires use of the option-drag - other wise, the item is moved into the folder, and no copy is left for the user. If this is what they desire to do - move the item to the Hand-In folder, then just dragging the item will work as expected.

Workgroup Administrators assigned to these workgroups also gain the ability to "Hand Out" items - placing them into the workgroup's "Workgroup Shared Folder" - which will be named the same as the workgroup itself.

At Ease for Workgroups - Large Network

I. Server Configuration:

   This network will draw on the settings from the two previous networks. Now we expand into an environment where one login server is insufficient, as well as having so many users that storage of user's documents becomes a concern.

II. Server setup - large network - over than 150 workstations, multiple At Ease servers, multiple AppleShare servers.

   a. This configuration is demanded by a large number of workstations and users. The setup allows a user to move anywhere on a large network, login at any workstation, and get connected to their documents folder, wherever it may be. The example here is of a network with several hundred users, over 150 workstations on the same LAN, and the need for lots of storage space. In this case, the user is a member of the Class of 99, belongs to several custom workgroups, and always needs access to their documents. Here's a partial matrix of the connections involved:

User is member of Class of 99.

User may log on at any station on the network.

```
              ┌─────────────────┐
              │   User at any   │
              │   workstation   │
              └─────────────────┘
                 ↙           ↘
   ┌──────────────────┐  or  ┌──────────────────┐
   │  At Ease Server  │      │  At Ease Server  │
   │       #1         │      │       #2         │
   └──────────────────┘      └──────────────────┘
              ↘                   ↙
┌──────────────┐  ┌──────────────┐  ┌──────────────┐
│  Class of 98 │  │  Class of 99 │  │  Class of 00 │
│  Document    │  │  Document    │  │  Document    │
│  Server      │  │  Server      │  │  Server      │
└──────────────┘  └──────────────┘  └──────────────┘
```
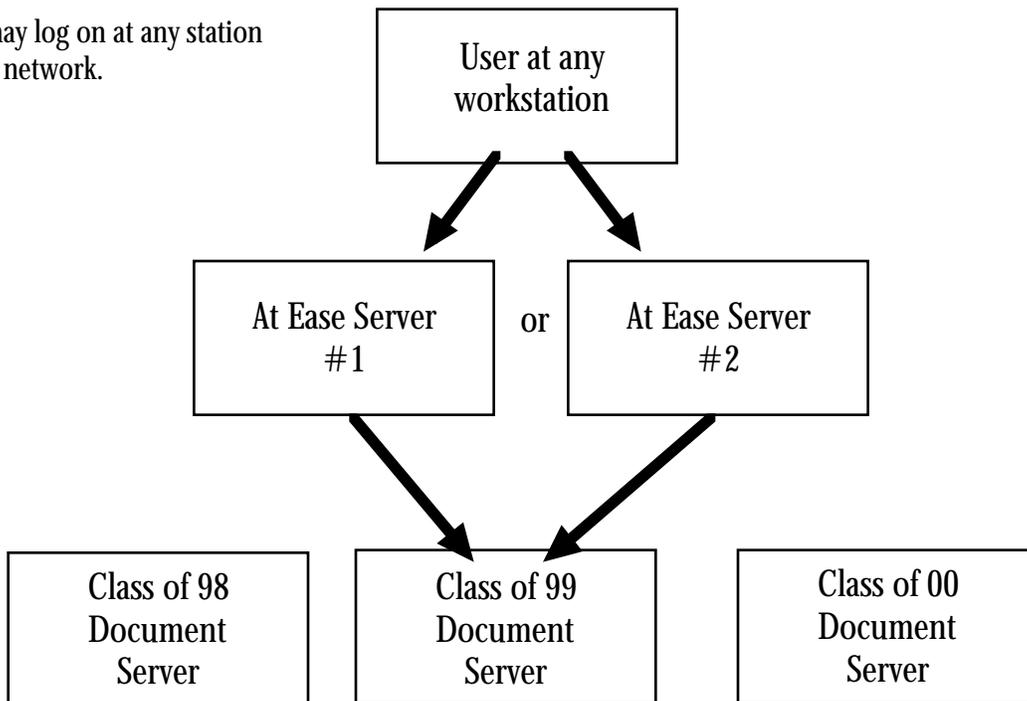
   The critical considerations here are matching the At Ease settings between multiple At Ease servers, and configuring the document servers correctly. Most of the work is done at the At Ease Administration level, some within AppleShare Web & File Admin.

   b. The document servers are the easiest to configure. They need to be AppleShare or Appleshare-compliant servers - Novell and NT servers with AppleTalk services properly configured will work. A single volume/folder is designated and shared for read/write access either with our special 'aefw' account, or another equally unique account. For this example, I have created folders on several AppleShare servers, one per class - each AppleShare server will contain the documents for one class. Note - by using the "class of" designation, I avoid having to change servers around at the end of the year. This is in lieu of using "Seniors, Juniors, etc."

c. Before going to At Ease Admin, you need to distribute the At Ease configuration. I merely logged on to both the At Ease server #1 (AWS-7250 - Secure-1) and the new At Ease server #2 (AWS-7350/K-12 - Secure-2) as the server administrator, mounted the Server HDs, and dragged the folder "At Ease Items WG 5.0" from the folder "Secure-1" to the other Server HD folder "Secure-2". All user, workgroup, and special settings are copied.

Caution - the workstation assignments are also copied. Therefore, you need to log onto each AEFW server as the administrator inside At Ease Admin and split up the workstation assignments. You cannot leave a workstation assigned to two different At Ease servers!

d. Configuring At Ease now is a matter of splitting the users into manageable groups by year group, and setting their workgroups to use the correct document servers. Configuring the workgroups may require some creativity - workgroup administrators - teachers - may span two or more year groups. If this is the case, you may want to design a special workgroup for teachers that lets them store student work in a special folder on a common server. You can even set up a pure AppleShare server with all of the teachers as standard AppleShare users, requiring them to log into this server as regular users to store their student/teacher work. This special server can then be part of a teacher prep workgroup.

Here's some example configs I worked out:
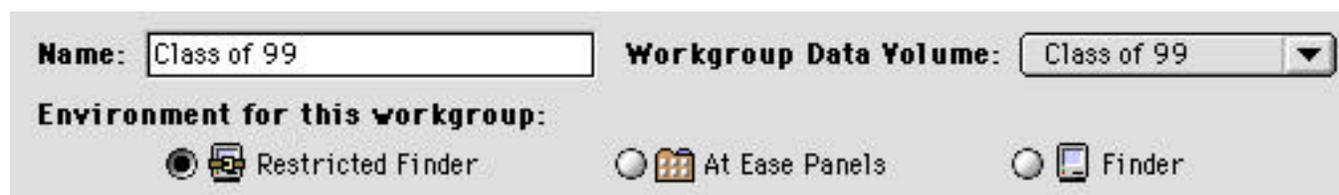
A generic workgroup with each entire user set is created, and pointed at their document folder. This workgroup can be duplicated, with applications and other settings adapted for specific curriculum, without losing the attachment to the proper document folder.

Where classes may overlap, I created multiple workgroups, redesignated for each class.
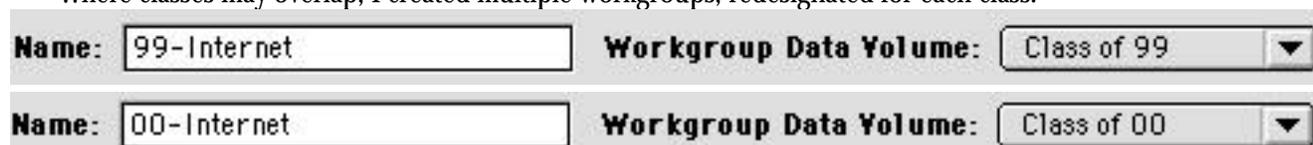
Where there are students who overlap year groups, these students will have to store items in two different servers. If someone figures out a way to make this work - let me know. Unless you take a completely different tack, and base everything on discipline. All students in science save one place, while literature students save elsewhere. This is a good idea for college; doesn't seem practical for K-12.

At this point, we have addressed most of the unique items in At Ease for Workgroups not covered, or not covered in detail, in the manuals. The next section is a collection of hints, tips and tricks covering Network Assistant and the Users & Groups Manager.

Hints, tips, tricks for Network Assistant and Users & Groups Manager

☺ Use the Workstation Info from the Network Assistant Security in ANA to add items not stored in the computer, such as teacher responsible for system, serial numbers, external devices (cameras, digital pad, etc.), and phone numbers.

```
Workstation Info
   #1: John's 6500/250        #3: 303-220-3266
   #2: Serial Number....      #4:

              Change Info...
```
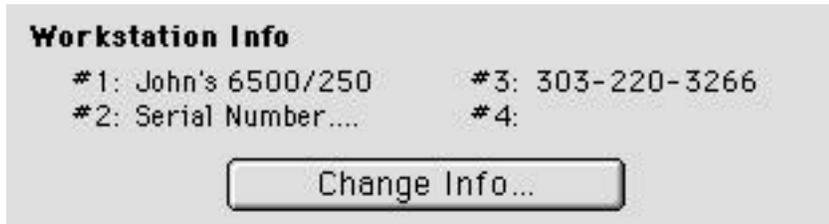
☺ Be gentle using the permissions within the Network Assistant Security. If all you are going to need is system information, turn off the other items. On servers, turn off the "Send me audio and text messages" - unless you think someone is going to be sitting in front of your server all the time.

```
☒ Allow administrators to:
    ☒ Generate reports about this workstation
    ☐ Send me audio and text messages
    ☒ Open and quit applications on this workstation
    ☒ Restart and shut down this workstation
    ☒ Change settings on this workstation
    ☒ Copy items to and from this workstation
    ☒ Delete and replace items on this workstation
    ☒ Control and observe this workstation
          ☐ Show me when I am being observed
```

☺ Set up multiple workstation sets in ANA. This way, several different areas can be managed seperately.

```
List:  [ D20 lab  ▼]
   🖥 Lab-5400-101
   🖥 Lab-5400-102
   🖥 Lab-5400-103
   🖥 Lab-5400-104
   🖥 Lab-5400-105
   🖥 Lab-5400-106
   🖥 Lab-5400-107
   🖥 Lab-5400-108
   🖥 Lab-5400-109
   🖥 Lab-5400-110
```

```
List:  [ Servers  ▼]
   🖥 AWS-7250
   🖥 AWS-7350/K-12
   🖥 AWS-8550/132
   🖥 AWS-9650/K-12 Demo
   🖥 AWS_8150
```

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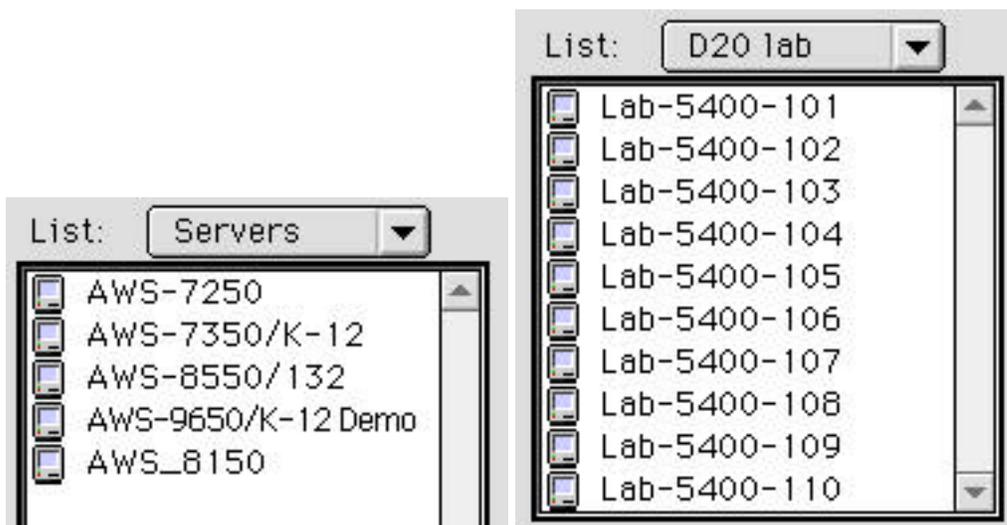
☺ Don't forget about the ability to search and attach workstations by IP address in ANA.

🖵 Search

○ Search for local workstations

● Search a remote TCP/IP network

Enter the static TCP/IP address of a workstation in the network you want to search:

`198.243.17.81`

○ Search a range of addresses

Enter starting TCP/IP address:

Enter ending TCP/IP address:

[Cancel] [Search]
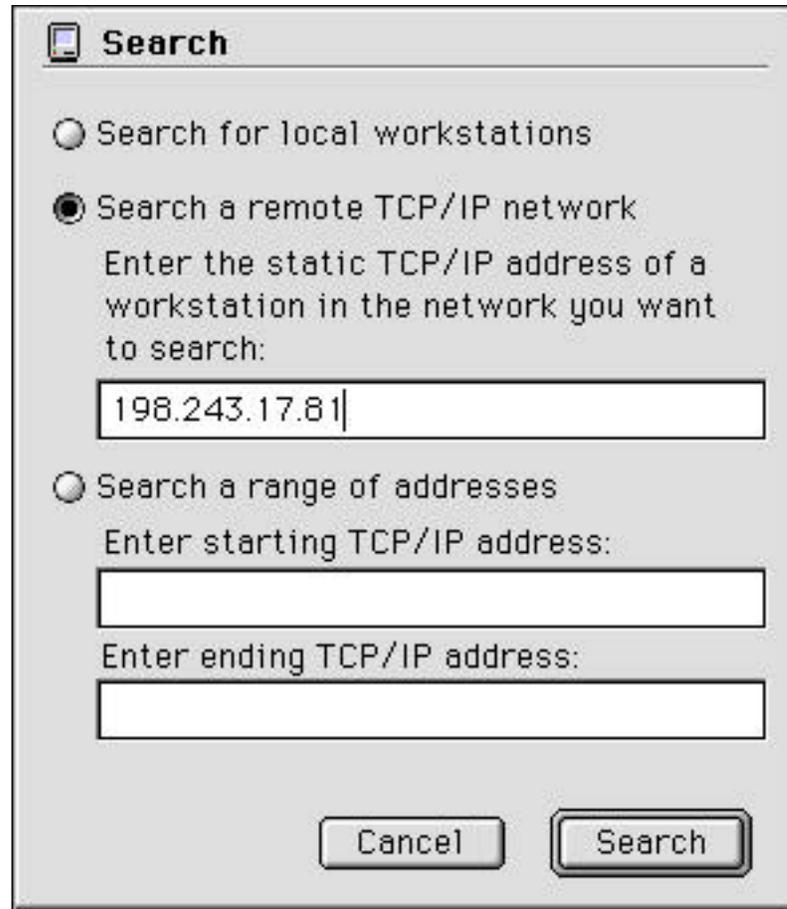
☺ The new Network Assistant lets you compare between installed items between any systems on the network, not just with your master station any more:

Name: `Software Difference Report`

Select the types of items to compare:

☒ Applications   ☒ Fonts

☒ Control Panels   ☒ Shutdown Items

☒ Extensions   ☒ Startup Items

Compare to: [🖵 John's 3400 ▼]
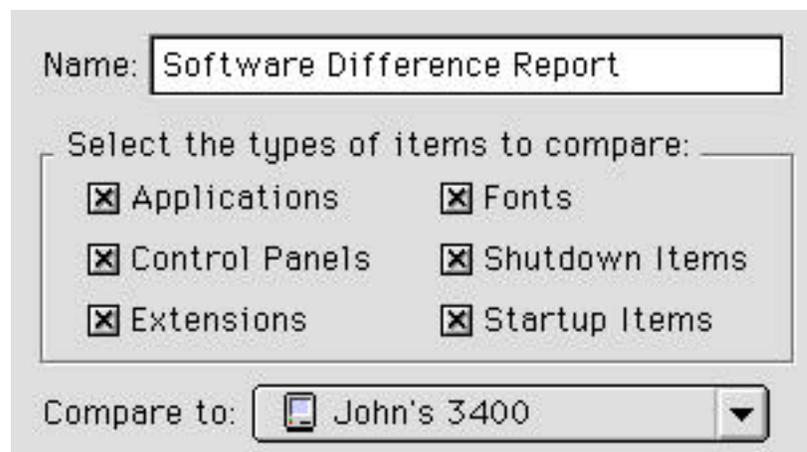
And once you've found discrepancies, you can delete unwanted items from within the report window.

☺ The new Network Assistant allows workstation names and IP addresses to be changed across the network. Best of all, if you select multiple workstations, you can change an entire range of addresses:

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Change TCP/IP Address

Enter a starting TCP/IP address for the 6 selected workstations. Each selected workstation will be set to a TCP/IP address one higher than the address of the preceding workstation.

Enter the starting TCP/IP Address:

198.243.17.72
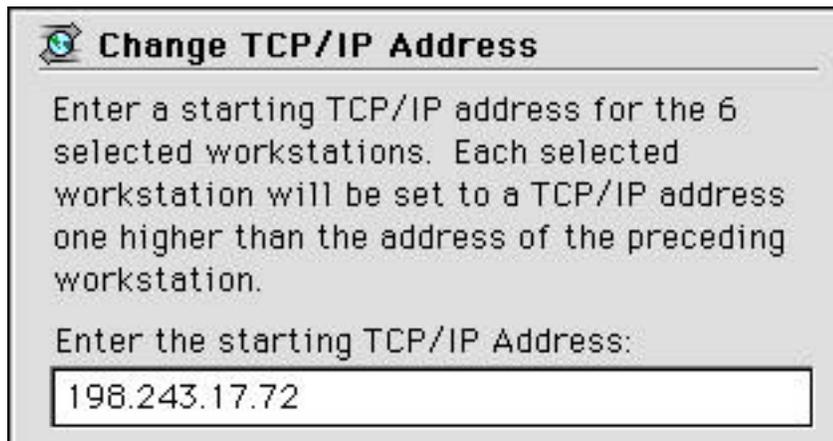
☺ Workgroup administrators within At Ease can be allowed to help manage certain areas. Assign them specific portions of ANA to run, and give them the passwords for a select group of machines - such as only the machines in thier lab.

☒ This administrator can use Network Assistant to do these things:

- ☐ Get information about workstations
- ☒ Send audio and text messages to workstations
- ☒ Open and quit applications on workstations
- ☐ Restart and shut down workstations
- ☐ Change system settings on workstations
- ☒ Copy items to workstations
- ☐ Delete and replace items on workstations
- ☒ Control and observe workstations

☺☺☺ Make sense of your computer names - instead of "Death Star" - try "Rm301-5400-3" for the third 5400 in room 301, or "CMS-211-5500-1" using three letter designators for schools, room numbers, machine type, and quantity.

☺ Use the automatic password assignment in UGM to speed up operations.

Passwords cannot be transferred from one server to another. Please select a method for creating passwords when users are transferred.

- ○ Create passwords automatically from the user's initials
- ● Prompt for a single password for all users
- ○ Prompt for a unique password for each user
- ○ Do not set passwords

☒ Require users to change passwords at the next login
   (Some servers may not support this option.)

Addendum - Using At Ease for Workgroups (AEFW) in a mixed At Ease / AppleShare Environment

Sometimes, access to a user's documents must be accomplished outside of the normal At Ease client/server arena. This may be due to the use of older systems that can't keep up with system software upgrades, the use of non-Mac systems, or the needs of off-site users. In any case, setting up the environment to allow access from either At Ease log-ons or AppleShare log-ons becomes necessary.

There are several steps involved in this process, and short-cuts are very definitely not favored.

1. First step is determining which users must have dual access. Hopefully, the need is only for a handful of users. If you have a user base of several hundred, or thousand, the process is do-able; just very tedious. In any case, from within the Users & Groups Manager, connect to both your AppleShare server and your At Ease server. These may be the same physical box; but note that these are two different server processes.

You can then select the At Ease users that need to be copied into the AppleShare users' list. Before copying, check your UGM preferences to decide which method of password creation you wish to use. I would recommend assigning an individual password for each account, and then making the user change the password at next login. Drag the selected users from the At Ease server window to the AppleShare server window, entering the passwords as required.

For a large group of users, select the At Ease users in the list, and use the File:Export File menu item. The format is User Name (one field) and Group (if selected). Passwords are not exported. Each user name is separated by a carriage return. Using a spreadsheet program, add passwords between the user name and the group.

Important - If you export groups, make sure these At Ease group names make sense to import into AppleShare. Don't create a lot of unnecessary group sets.

Using the UGM File:Import File menu, you can then bring in the modified user list, importing user name, password, and group (if wanted). The focus here is on creating the same user name experience for the end user. Now, there is no requirement for you to use the same name for the At Ease login as is used for the AppleShare login; it just makes life a little easier for the end user. You decide how many support calls you can handle when a user gets the different accounts mixed up.

When you are done with this process, you should have an At Ease account and a matching AppleShare account for each user that needs to connect using either environment. The User & Group Manager has a very nice function to display unique accounts to check this.

That was the easy part. Now for the folder permissions.

2. All the work now needs to be done from the AppleShare Admin program. For this document, we are going to use AppleShare IP 5.x versus AppleShare 4.x. If you are using 4.x, the process is the same, just the dialogs look a little different.

A quick review of our AEFW configuration. When we set up At Ease for Workgroups (AEFW) the first time, we created one AppleShare account - aefw. This account owns the At Ease Server volume named, appropriately, aefw. Within this folder are the two primary folders used by AEFW to function - the At Ease Items WG 5.0 folder, and the Documents folder. In order for our crossover process to work, we need to alter the AppleShare privileges for several items in here. Currently, only the aefw folder is shared, and the aefw account either owns the folder, or is co-owned with the master

admin account. All other users have a No Access setting.

If you logged in using the Chooser right now, only the aefw account can even get to see the folder, much less see the contents. Any other user should see only a greyed out aefw folder in the Chooser :Select the items you want to use: window. (See diagram below)
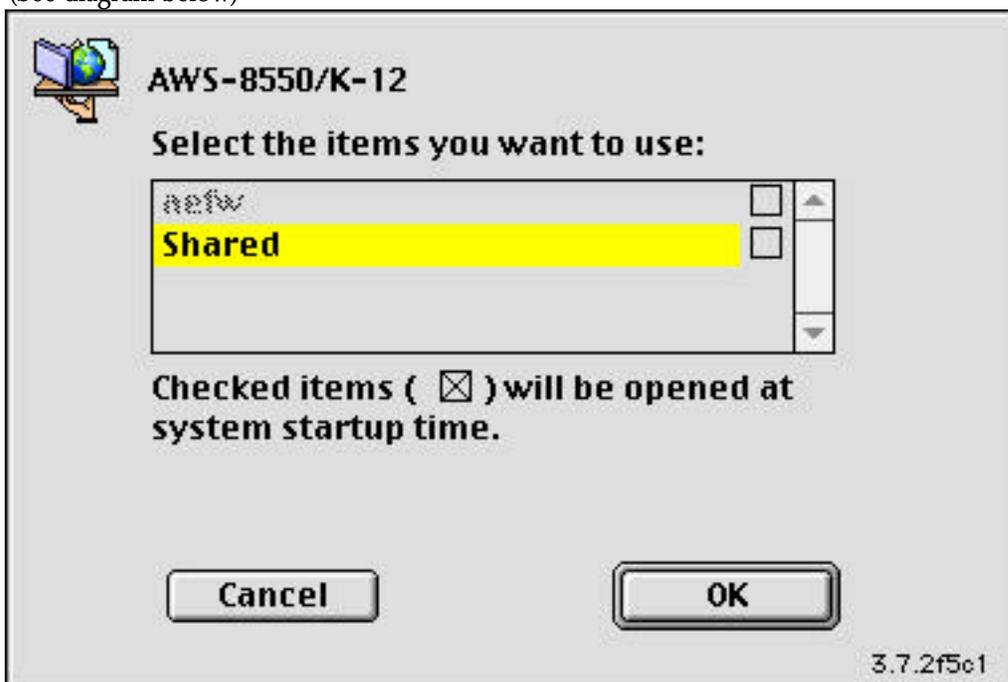
The reason for these settings is to keep any casual users from getting into the At Ease volume/folder under normal, AEFW circumstances. Altering this configuration for AppleShare access will require allowing everyone to see into the aefw folder, keeping them out of the At Ease Items WG 5.0 folder (it's where all of the settings are, and since this folder is only needed by the At Ease master account - aefw to work, no one else needs to be able to get into it.), and letting each and every user have access to their own document folder. Caution and planning are critical from here on.

The first change is to set the privileges for Everyone to Read Only.
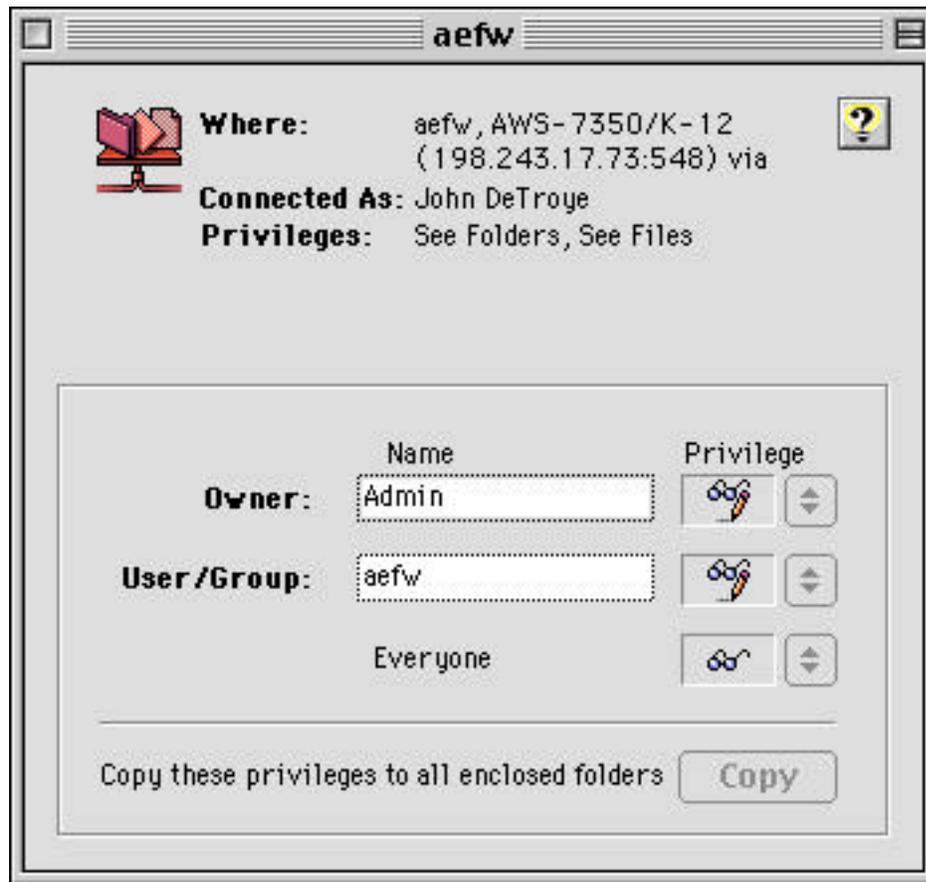
 This will let anyone connect to the aefw folder and see inside it. Do not change the privileges of the sub-folders to reflect the Read Only setting. When you log in now using the Chooser as Guest, the folder should look like this:
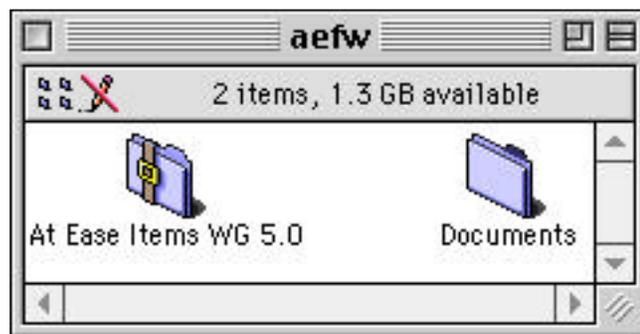
3. In order for a user to access their documents from AppleShare, the sub-folder belonging to them must be

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reassigned from the way At Ease sets them to an AppleShare configuration.

In AppleShare IP Web & File Admin, select the Documents folder sub-menu (it's the little diamond next to the disk icon). This will display all of the sub-folders within the Documents folder.

Next, select each user's document folder and reset the access privileges to show aefw as the Owner, the User/Group will be that folder's user with Read/Write access, and Everyone will be set to None.
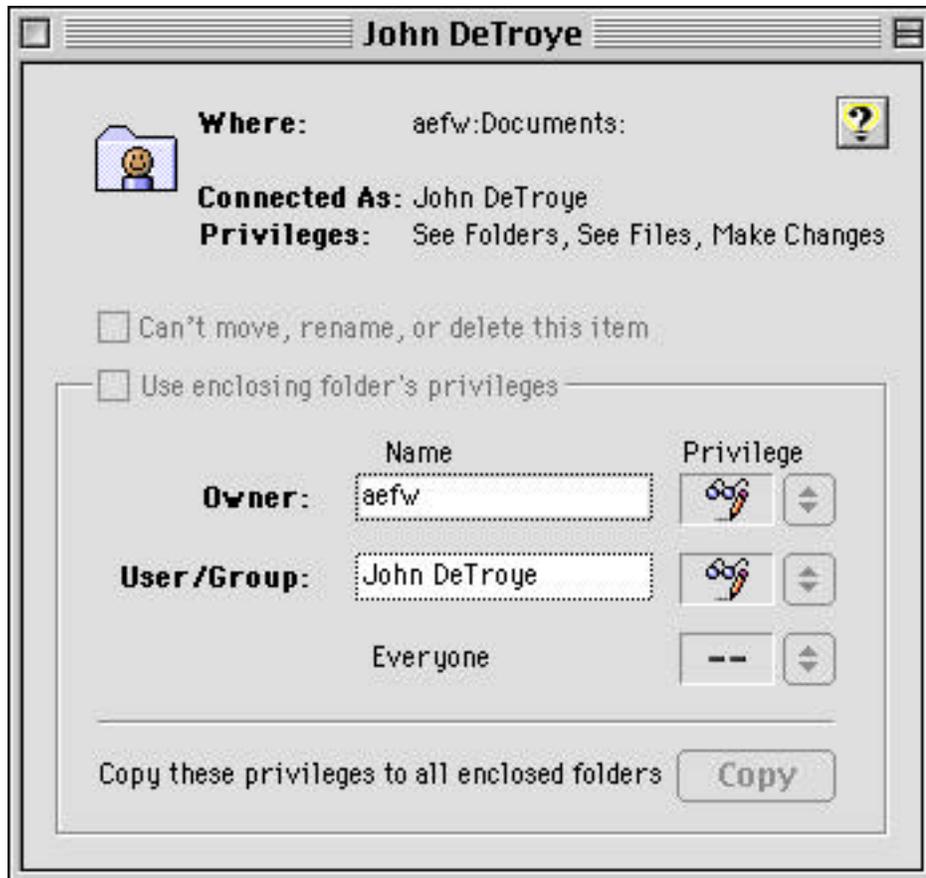
This process must be repeated for each and every user needing to use AppleShare to connect. Once complete, a user connecting through At Ease will be directed to their documents folder as a result of At Ease permissions. Users connecting through AppleShare will use their name to login, and will see the aefw folder, and inside it, their own document folder.

With all of the permissions set - test, test, test. Log in as an At Ease user and access your documents folder. Place or save a test document in the folder. Then, either log into a workgroup that is Finder Only or go to another, non-AEFW workstation, and log in again as the same user. You should be able to see your test document. Also, log in as Guest, and for security testing, another user, to see if you can get into someone else's folder. If any of the access restrictions fail, review and readjust access privileges.

4. The next set of folders to adjust will be the Global Shared ƒ (the option-F means folder in Mac parlance), and the Groups folder(s). The Global Shared ƒ should look like this:

```
┌──────────────────────────────────────────────────────────┐
│ ▣  ▤▤▤▤▤▤▤▤ Global Shared ƒ ▤▤▤▤▤▤▤▤  ▤  │
├──────────────────────────────────────────────────────────┤
│                                                    ┌───┐  │
│   ┌──┐  Where:        aefw:Documents:             │ ? │  │
│   │👥│                                             └───┘  │
│   └──┘  Connected As: John DeTroye                        │
│         Privileges:    See Folders, See Files             │
│                                                           │
│    ☐ Can't move, rename, or delete this item              │
│                                                           │
│   ┌─ ☐ Use enclosing folder's privileges ──────────────┐  │
│   │                    Name              Privilege      │  │
│   │  Owner:    ┌────────────────┐    ┌────┐ ┌──┐        │  │
│   │            │ aefw           │    │ 👓✎│ │ ♦│        │  │
│   │            └────────────────┘    └────┘ └──┘        │  │
│   │  User/Group: ┌──────────────┐    ┌────┐ ┌──┐        │  │
│   │            │ aefw           │    │ 👓✎│ │ ♦│        │  │
│   │            └────────────────┘    └────┘ └──┘        │  │
│   │            Everyone              ┌────┐ ┌──┐        │  │
│   │                                  │ 👓 │ │ ♦│        │  │
│   │                                  └────┘ └──┘        │  │
│   │  ─────────────────────────────────────────────      │  │
│   │  Copy these privileges to all enclosed folders ┌─────┐│  │
│   │                                                │Copy ││  │
│   │                                                └─────┘│  │
│   └──────────────────────────────────────────────────────┘  │
└──────────────────────────────────────────────────────────┘
```

The Groups folder is touchier. You can either leave it as shown below, or adjust each sub-folder to reflect access for your users as they are assigned to specific workgroups.

```
┌──────────────────────────────────────────────────────────┐
│ ▣  ▤▤▤▤▤▤▤▤ Groups Folder ▤▤▤▤▤▤▤▤  ▤  │
├──────────────────────────────────────────────────────────┤
│                                                    ┌───┐  │
│   ┌──┐  Where:        aefw:Documents:             │ ? │  │
│   │📁│                                             └───┘  │
│   └──┘  Connected As: John DeTroye                        │
│         Privileges:    No Privileges                      │
│                                                           │
│    ☐ Can't move, rename, or delete this item              │
│                                                           │
│   ┌─ ☐ Use enclosing folder's privileges ──────────────┐  │
│   │                    Name              Privilege      │  │
│   │  Owner:    ┌────────────────┐    ┌────┐ ┌──┐        │  │
│   │            │ aefw           │    │ 👓✎│ │ ♦│        │  │
│   │            └────────────────┘    └────┘ └──┘        │  │
│   │  User/Group: ┌──────────────┐    ┌────┐ ┌──┐        │  │
│   │            │ aefw           │    │ 👓✎│ │ ♦│        │  │
│   │            └────────────────┘    └────┘ └──┘        │  │
│   │            Everyone              ┌────┐ ┌──┐        │  │
│   │                                  │ -- │ │ ♦│        │  │
│   │                                  └────┘ └──┘        │  │
└──────────────────────────────────────────────────────────┘
```

If, in the first section, you imported both users and groups into AppleShare, you would then give Read Only access to

everyone for the Groups folder. Then, set permissions for each sub-folder to allow either Read/Write or Read Only access for that specific group. The setting should reflect the parallel At Ease configuration.

See how easy that was? In the next section we'll cover configuring At Ease security to disintegrate unauthorized users....