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Spider System Setup

The Spider System Setup Document

How to setup Spider: Shepard, Serv-U FTP, SpClient, NetPal etc.

This document shows how to set-up every aspect of Spider, and there are many.

There are two sides of a Spider setup, the server side and the client side. A server system is located at every location where lots of production is done. A client is located at every site that receives audio and programming from a server.

Let's Pretend...

For purpose of example we'll need a few fictitious stations in various towns. Let's put the hub in Hubville, and one client in Univille, another client in Duoville and finally, one more client in Triville.

Terms

Among Radio, the Internet, telephones, computer hardware and computer software, there is enough specialized jargon to make Noah Webster spin in his grave. Here is a list of terms with which you should be familiar:

Server	Usually refers to the machine that serves files to the internet. It is sometimes referred to as the FTP-Server or Shepard (since SHEPARD.EXE runs on this machine).
Client	Machine running the SPCLIENT.EXE program. There is one of these machines at every site that receives audio from a server. It is networked to the SMARTCASTERS via Lantastic.
FTP	(F)ile (T)ransfer (P)rotocol. This is the "language" that the Server and the Client speak in order to send and receive data.
SERV-U FTP Server	A program made by CatSoft (www.catsoft.com) that turns a windows computer into an FTP server.
NetPal	A dialer program that is used to supplement Window's own internal dial-up adapter. Any Windows computer can be set up to call the internet via modem, but the dialer within Windows does not automatically re-connect if the line drops. NetPal takes up that slack and makes sure that the dial-up connection stays in place. NetPal is make by a company called Kookabura Software (www.kburra.com)

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Dial-up Adapter	This is Microsoft-speak for "modem". It is a collection of programs that allows the computer to connect its modem to other modems. All machines that use modems (not cable modems), must have dial-up networking installed on them.
HUB	The term hub can refer to a box that all networking cable is routed to, or it can refer to the station where all the production is generated for distribution.

The Production Hub

Every group of stations has at least one Hub where a large amount of production is done.

This Hub **must** have a SMARTCASTER that is a dedicated production unit. By dedicated, I mean that this system cannot do unattended records, play-back to air or any other function the record screen and cut manager. This is because audio cuts recorded for Spider distribution are recorded with the enhanced directories feature disabled (recording the audio directly under the directory titled AUDIO).

Production that is done for the local station only is done with the enhanced directory feature enabled. This allows for the existence of two completely different sets of audio cuts. This is necessary because, depending on the number of stations, it is very likely that a cut that is recorded to be distributed via spider conflicts with the same cut number on the local cut inventory. In other words, if I want to send 00131 to Univille, but Hubville (where I do my production) already has a 00131 that is completely different, I don't want to record over my local copy of 00131.

The Production system hold the main user interface for the Spider. This interface is built into SMARTCASTER. While this is the interface the user sees most often, the majority of the actual work is done on the Shepard/Server unit.

The Server unit is a Windows computer that is running several programs:

- SHEPARD.EXE
- SERV-U FTP File Server
- NET-PAL (This program is **not** run, however, if the customer has a non-dialup connection to the internet, i.e. cable modem, ISDN etc.)

The Server unit must share its local C> drive with the rest of the LAN network. This is to allow the SMARTCASTERS access to the C> drive so that they can transfer audio cuts to it for Spider distribution. The following list assumes

- that you have a new computer with a modem and a freshly installed copy of Windows (95/98).
- That you have already loaded Lantastic networking.

Most machines come with Dial-up networking already installed. Just in case your computer doesn't have it installed, I've included the next section. To see if you have dialup networking already installed, double click My Computer and see if there is an icon titled Dialup Networking. If so, skip the section titled "To Install Dial-Up Networking." If you do not see a Dialup Networking ICON, follow these steps:

To Install Dial-up Networking:

Double-Click My COMPUTER	The My COMPUTER dialog appears
Double-Click Control Panel	The Control Panel appears
Double Click ADD-REMOVE Programs	The Add-remove programs dialog appears
Click on the Windows Setup Tab	The Windows Setup Tab appears

Scroll down to COMMUNICATIONS and double click it.	The Communications settings appear
Click on the box to the left of Dial-up Networking.	A check mark appears in the box
Click on OK	Windows prompts you to insert the Windows 95/98 CDROM.
Insert the CD Rom or (if you've installed the Windows CAB files to a directory on your hard drive), navigate to the directory containing the Windows installation CAB files. Then click on OK	Windows copies the files necessary for dialup networking. Upon completion, Windows insists on re-booting the computer.
When the re-start message appears, go ahead and allow windows to restart the machine. Upon completion of the re-start, dialup networking is available and you are ready to add a dial-up connection. Proceed to the next setup walkthrough below:	

Adding a Dial-up Connection:

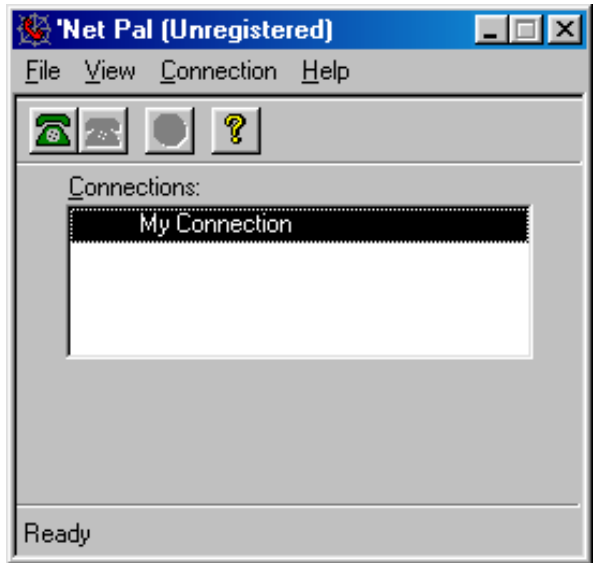
Even if you have dialup networking installed, you must still create a new dial-up connection. To do so, follow these steps:

Double click on MY COMPUTER	The My Computer Dialog box appears
Double click on Dial-up networking	The Dialup Networking box appears
Double click on MAKE NEW CONNECTION	A MAKE NEW CONNECTION Wizard appears.
In the edit box under the label "Type a name for the computer you are dialing," enter the name of your internet provider. This name does not have to be an exact match, this is just for your own reference.	The name appears in the edit box as you type
Press the [TAB] key	The Cursor jumps down to the edit box under the label "Select a device."
Click on the down arrow to the right of the "Select a device" edit box.	A drop-down list of modems appears
Select the type of modem that you have. Note: On some cantankerous Windows systems, an extra modem is seen in this box, but doesn't really exist. In this case, choose the modem from this list that is the same name-brand as the one connected to the Spider machine. At the time of the writing of this document, SMARTS' standard modem is an U.S. Robotics External modem.	The drop down box disappears and the correct modem name shows in the box under the "select a device" label.

Click NEXT	A box appears prompting you to "Type the phone number for the computer you want to call"
In the box labeled Area code, enter the area code of your internet provider.	The area code appears as you type
In the box labeled Phone Number, enter the telephone number of your internet provider	The phone number appears as you type. If you wish to enter the dashes and parentheses you may, but it is not required.
Click Next	A message box appears saying that you have successfully completed the creation of a new dialup connection.
Click Finish.	The box disappears. Your connection is made. You are now ready to install NETPAL.

Installing and configuring Net-Pal:

Please note that it is not necessary to install NETPAL on a system that does not use Dial-up networking to connect to the internet. Among these types are: Cable modems, ISDN lines or T1 lines.

<p>Run the SETUP.EXE program for NETPAL. Accept all the default settings.</p> <p>Once NETPAL is installed, go ahead and run it by clicking on START>Programs >NETPAL > NETPAL</p>	<p>The NETPAL program appears:</p> 
<p>Most of the time, there is only one connection to choose. (in the picture, the only connection available is called "My Connection".</p> <p>Sometimes, however, there may be several connections to choose from. Netpal can only use one of these connections at a time.</p> <p>So, select the connection that you wish to use (left click on the title under Connections).</p>	<p>The connection is selected (as shown above).</p>

Now click CONNECTION > TOGGLE AUTODIAL

The connection now shows a lightning bolt to the left of the connection title:



Now click View>Options

The Option box appears:



Make sure that the following items are checked:

- Redial Connections
- Minimize On Connect
- Copy IP to Clipboard
- Add icon to taskbar tray
- Run on Windows Start-up
- Auto Reconnect

Make sure the following are **not** checked:

- Restore Window State
- Disable if autodialed

In the Interval boxes, make sure that the minutes box is set to 0 and that the seconds box is set to 3.

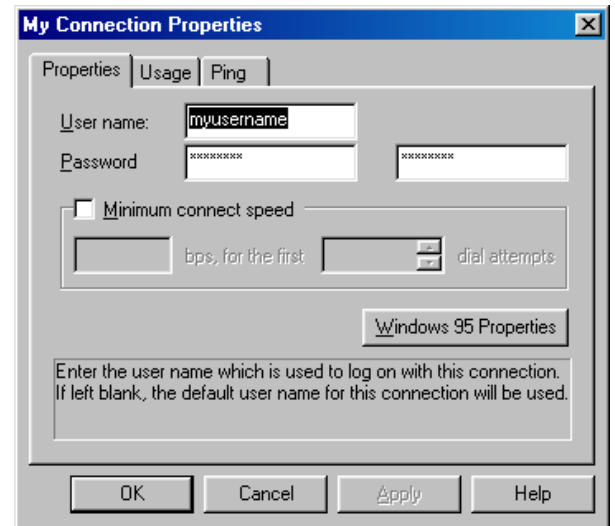
Upon completion, your screen should look like the picture above.

Click on OK

The "global options" box disappears.

Click on Connection > Connection Options

The Connection Options dialog box appears:



In the Username box, enter the username for your internet account

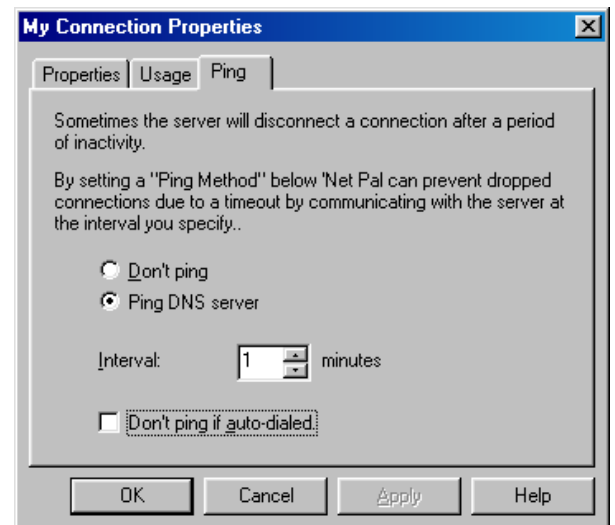
The username appears as you type

In the first Password, enter the password for your internet account. This password is provided by your Internet Provider

Note: As you type your password, you will not see what you are typing. Instead, you see *'s. This is a security measure to make sure that no one is spying over your shoulder with a telescope to get your password. The problem with not being able to see what you type is that you could make typo's. To guard against this, your are asked to enter the password *twice* once in the first box, and once again in the box to the right. Both of these passwords must match exactly for NETPAL to accept them as valid.

Click on the PING tab

The Ping options appear:



Click on "Ping DNS server" and set the Interval to 1 minute. Make sure that the "Don't ping if auto-dialed" is **not** checked.

The Properties box disappears.

Finally, click on OK

Netpal is now installed. With the auto-dial already toggled on, it is probably trying to call the internet right now, if not click on the green phone to activate it.

To Setup a Spider Shepard System:

Insert the first disk of the Audio Shepard install set, and run the SETUP.EXE on the A: Drive.	A standard Windows installation routine begins. Accept all default settings
Click on START>Programs>MS DOS PROMPT	The DOS windows appears. Your cursor should say C:\WINDOWS>
Type CD\ and press [ENTER]	The prompt changes to C:\>
Type MD STATIONS and press [ENTER]	The C:> prompt appears again
Type MD SHEPARD and press [ENTER]	The C> prompt appears again
Type CD STATIONS and press [ENTER]	The C> prompt changes to C:\STATIONS>
<p>Now we get to make a directory for every town (or every location that houses a CLIENT unit). As per our example, we'd create a directory for Hubville, Univille, Duoville and Triville Type this:</p> <p>MD HUBVILLE (press [ENTER])</p> <p>MD UNIVILLE (press [ENTER])</p> <p>MD DUOVILLE (press [ENTER])</p> <p>MD TRIVILLE (press [ENTER])</p> <p>Obviously, I am using the example names. We'd want to substitute the proper names.</p> <p>Note: Keep the town names to 8 characters or under. DOS (the operating system that the SMARTCASTERS use) cannot work with file names that are longer than 8 characters.</p>	As you type each of these commands, the C:\STATIONS> prompt appears.
<p>Now, we must create a special directory under each of these for each station.</p> <p>For the sake of simplicity, lets say that Univille and Duoville both have only one station, but that Triville is an AM/FM and has two stations.</p> <p>In that case we'd do the following:</p> <p>Type CD HUBVILLE (press [ENTER])</p>	The prompt changes to C:\STATIONS\HUBVILLE>

Type MD KAAA (press [ENTER])	The C:\STATIONS\HUBVILLE> prompt appears again
Type CD ..	The prompt changes to C:\STATIONS\>
Type CD UNIVILLE	The prompt changes to C:\STATIONS\UNIVILLE>
Type MD KBBB (press [ENTER])	The C:\STATIONS\UNIVILLE> prompt appears again
Type CD ..	The Prompt changes back to C:\STATIONS>
Type CD DUOVILLE (press [ENTER])	The prompt changes to C:\STATIONS\DUOVILLE>
Type MD KCCC (press [ENTER])	The C:\STATIONS\DUOVILLE> prompt appears again
Type CD ..	The prompt changes to C:\STATIONS>
Type CD TRIVILLE (press [ENTER])	The prompt changes to C:\STATIONS\TRIVILLE>
Type MD KDDD-AM (press [ENTER])	The C:\STATIONS\TRIVILLE> prompt appears again.
Type MD KDDD-FM (press [ENTER])	The C:\STATIONS\TRIVILLE> prompt appears again.
Type CD\	The prompt changes to C:\>
<p>By this point we've created a directory structure containing a directory for each station group and (under these) a directory for each station.</p> <ul style="list-style-type: none"> ● C:\Stations\Hubville ● KAAA ● C:\Stations\Univille ● KBBB ● C:\Stations\Duoville ● KCCC ● C:\Stations\Triville ● KDDD-AM ● KDDD-FM <p>Now, type CD SHEPARD (press [ENTER])</p>	The prompt changes to C:\SHEPARD>

<p>Next, in this (shepard) directory, we need to make a similar directory structure to the structure that is under STATIONS. The difference is that the directories under SHEPARD do not have the individual station directories under the "town" directories.</p> <p>This directory is the one that is shared with the whole Internet world via FTP. These directories are actually the FTP accounts used by the SERV-U FTP file server. Each station group has one SpClient machine and therefore needs only one FTP account for the entire group.</p> <p>To further illustrate, let's use the example that we've created. Hubville, Univille and Duoville have one station per town. Each of these station groups happen to be groups of one. Triville, however, is a station group containing two stations. Even though Triville has two stations, it is still just <i>one group</i> so it gets <i>one account</i> called Triville.</p> <p>To implement our example, type the following: MD HUBVILLE (press [ENTER])</p>	The prompt C:\SHEPARD> appears agin
Type MD UNIVILLE (press [ENTER])	The prompt C:\SHEPARD> appears again
Type MD DUOVILLE (press [ENTER])	The prompt C:\SHEPARD> appears again
Type MD TRIVILLE (press [ENTER])	The prompt C:\SHEPARD> appears again
Now, type EXIT and press [ENTER]	The MS-DOS screen disappears and you are back to the Windows desktop.

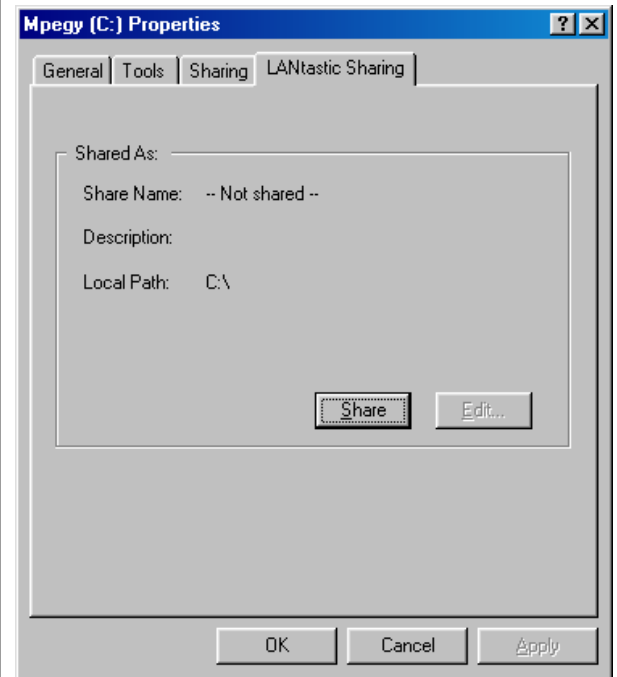
Sharing C> drive on the Shepard machine with the rest of the LAN Network

To use the directories that we've created, we must make sure that the C> drive of the Server/Shepard unit is shared with the rest of the network.

Double Click on My Computer	My Computer box appears
Right Click on C> drive	A popup menu appears

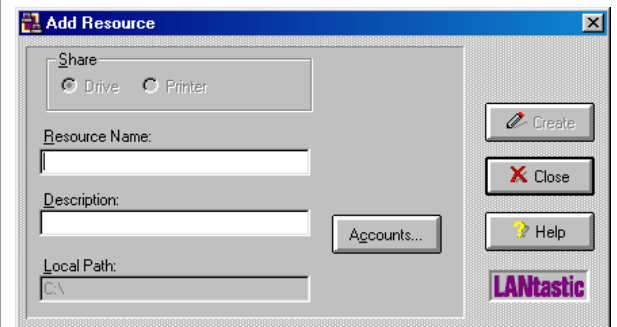
Left click on Lantastic Sharing

A share menu activates.



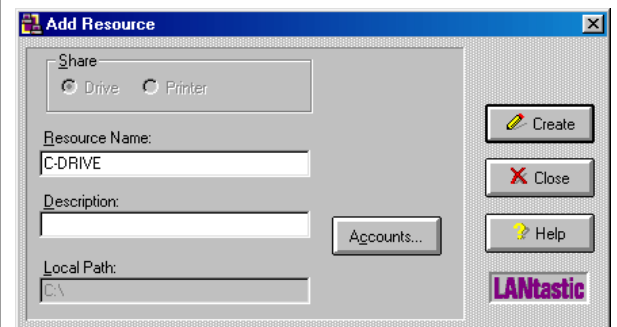
Click on the SHARE button

The Add Resource Dialog box appears:



In the resource name field, enter C-DRIVE.

Upon completion, the box should look like this:



Now click on CREATE

Lantastic shows a progress bar for a second or two then disappears. Your C-drive is now shared with the Local Area Network.

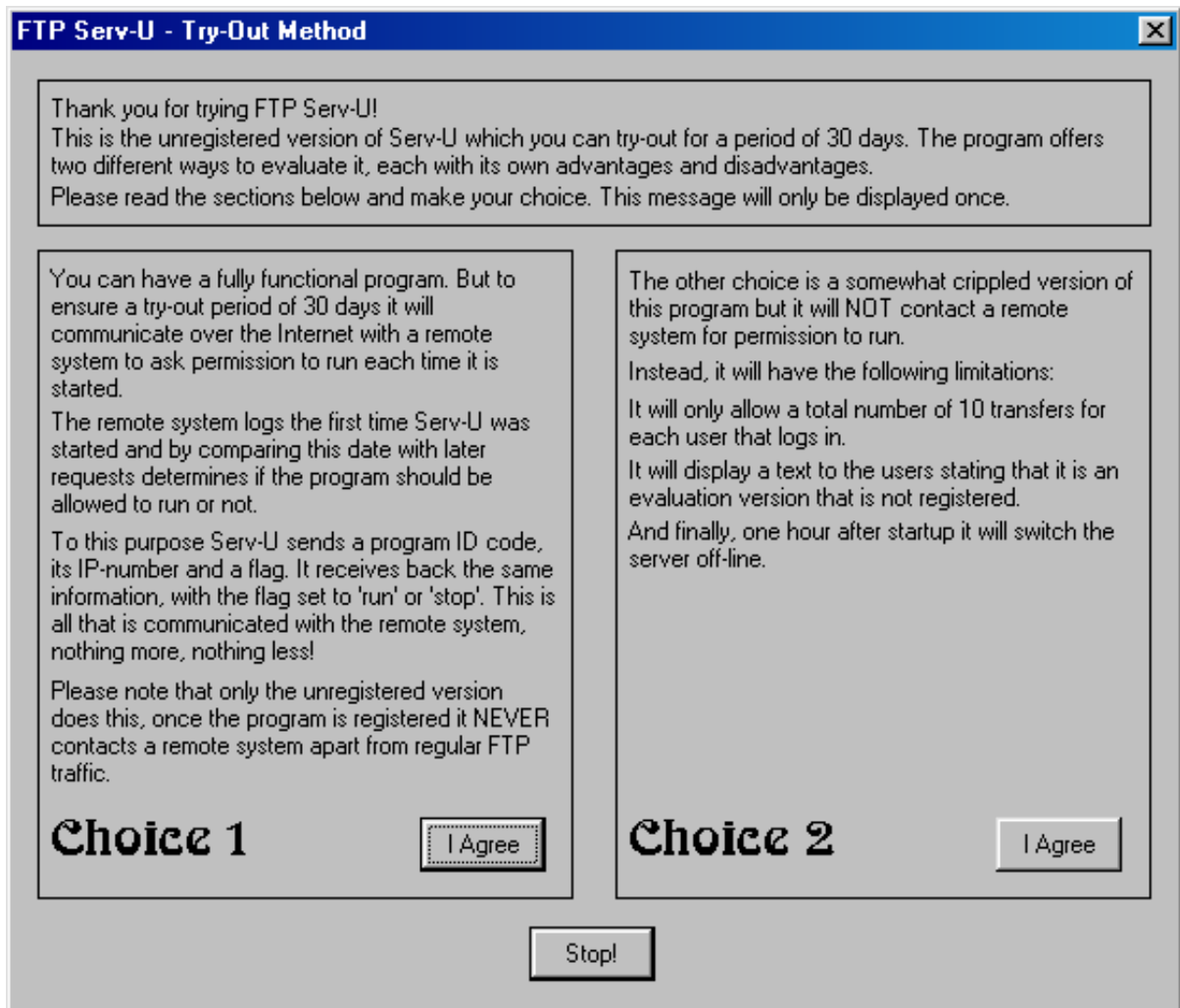
To Setup SERV-U FTP file Server

Run the SETUP.EXE program for SERV-U

This runs through a standard Windows setup routine. Please use all default settings.

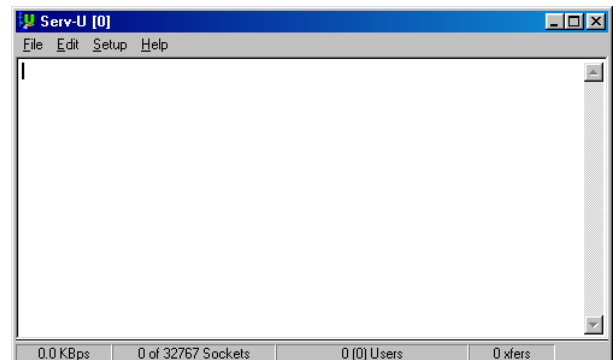
Once finished with the setup, select
START>Programs>SERV-U> Serv-U FTP
Server

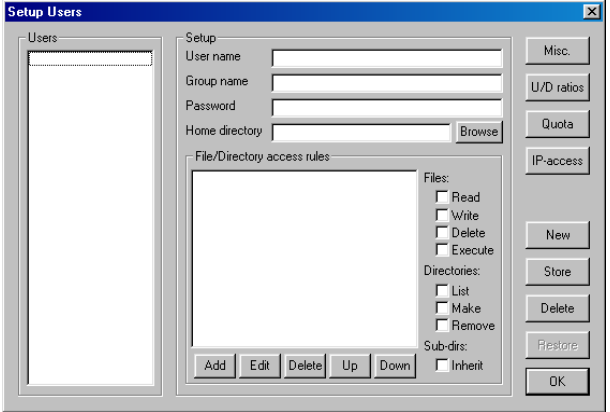
This runs SERV-U for the first time. You'll see
two choices.



Click the "I AGREE" button in the Choice 1
box.

The Choice screen disappears leaving the main
SERV-U screen.



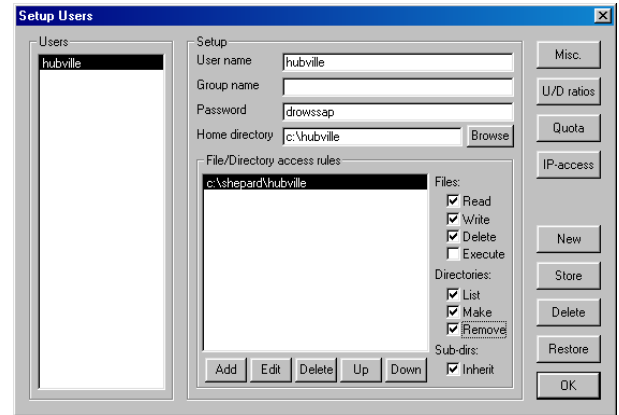
<p>Now, click on SETUP>Users</p>	<p>The Users screen appears:</p> 
<p>Now we get to create accounts for each of the station groups. There will be one of these accounts for each of the stations listed under the Shepard Directory we created before.</p> <p>Click on the NEW button on the right hand side of the screen.</p>	<p>A dialog box pops up asking for the username.</p>
<p>In the Username field, type hubville</p>	<p>"hubville" appears in the Username box</p> <p>Note: The name in the Username box is case sensitive. Please use all lower case.</p>
<p>Click on OK</p>	<p>The word hubville appears in the USERNAME field as well as the list of users on the left hand side of the screen.</p>
<p>Click on the PASSWORD field</p>	<p>The cursor blinks in the password field</p>
<p>Establish the password for the Hubville account. You get to make this up, just don't forget it! As a matter of fact, call SMARTS for our naming convention.</p>	<p>Note: The password field is CASE Sensitive. Be sure to always use lower case.</p>
<p>Now [TAB] down to the HOME DIRECTORY field and enter C:\SHEPARD\HUBVILLE</p>	<p>The name appears as you type it</p>
<p>Next, click on the ADD button at the bottom of this screen.</p>	<p>The PATH NAME entry box appears</p>
<p>Enter into this path name the same path you entered before:</p> <p>Type C:\SHEPARD\HUBVILLE and press [ENTER]</p>	<p>The entry box disappears, and the directory information is entered in the file/directory access rules box.</p>

Just to the right of the File/Directory Access Rules box, there is a column of options. Of these options, be sure the following are checked:

- Read
- Write
- Delete
- List
- Make
- Remove

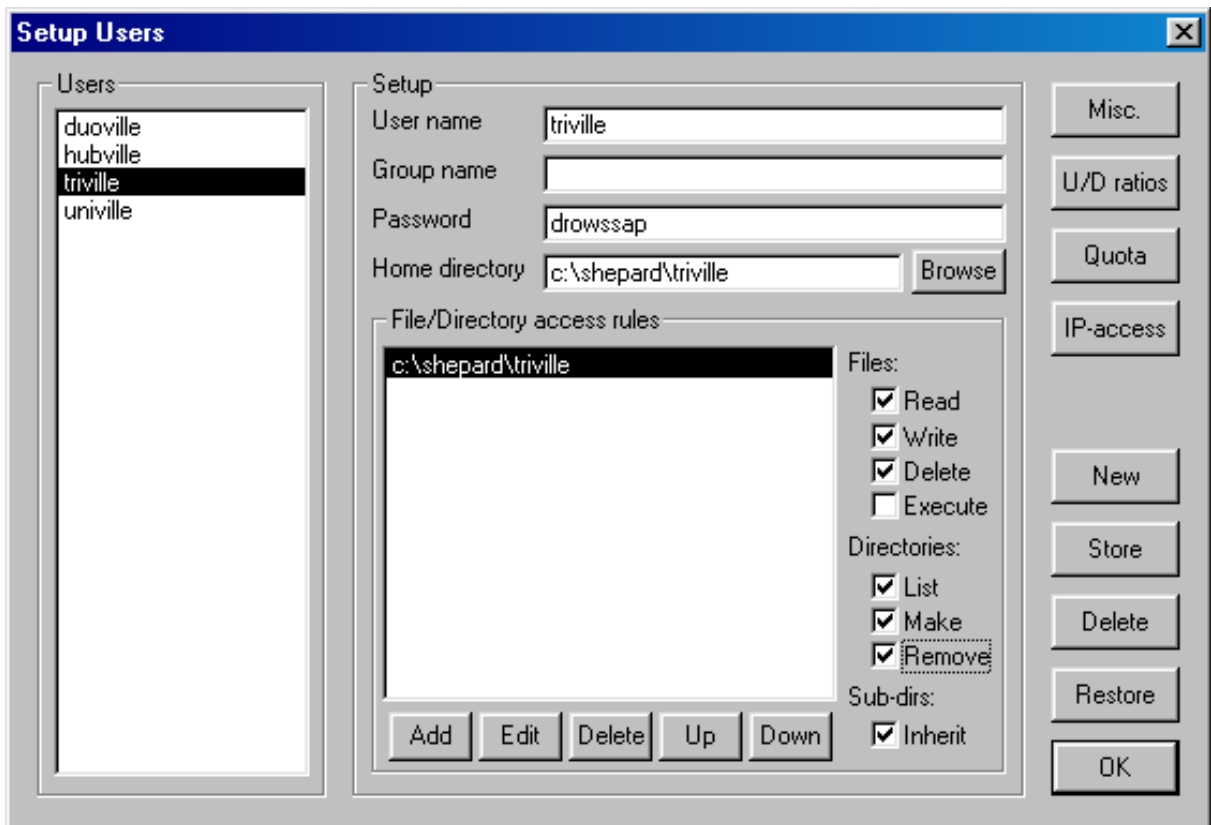
Be sure that Execute is not selected.

When finished, it should look like this:



Repeat the steps again (starting with pressing the NEW button) for each of the group's accounts.

When completely finished, it should look like this:




Congratulations! You've just installed and configured Serv-U ftp file server. The only thing remaining with the FTP portion is to make sure that SERV-U ftp server comes up every time the system boots.

To Add Serv-U FTP file server to the Windows Startup Folder

Right-Click the START button	A popup menu appears
Click on OPEN	A "Program Manager" style box opens displaying the contents of the START menu in editable boxes.

Double click on PROGRAMS	The list of items under Programs appears
Double Click on SERV-U Ftp Server Option	The contents of the SERV-U Ftp Server appear
RIGHT Click the icon called SERV-U (it's the one with the big green U)	A popup menu appears
Left click on COPY	The popup menu disappears
Click on the "x" in the upper right hand corner of this box	The Box disappears
Right Click on START again	The popup menu re-appears
Left click on OPEN	The contents of the menu bar display themselves again.
Double click on Programs	The contents of the Programs folder are displayed
Double click on the STARTUP folder	The contents (if any) of the Startup folder are displayed
RIGHT click on the "white space" inside this box	A popup menu appears
Left click on PASTE	The Serv-u icon appears
Click on the "x" in the upper right hand corner of this box	The box disappears Now, when Windows starts, Serv-U FTP server will start automatically

The last and most important thing to do with this machine is to install the SHEPARD program.

Run the SHEPARD Setup program	There is a standard Windows install. Choose all default settings
Once installed, click on START>Shepard>Shepard	<p>The Shepard program starts:</p> 

Click on SETUP>RADIO STATION SETUP LIST

The Setup screen appears:

Now the tedious part... you must make an entry for each *station* not station group. For instance, in our example, we would have to make a separate entry for

KAAA

KBBB

KCCC

KDDD-AM

KDDD-FM

You may notice as you fill in the blanks that the FUNCTION and FCTN INDEX fields alter themselves. This is designed to automatically accommodate groups with multiple stations whose functions (liners, jingles etc.) need to be sent to unique locations. The path portion within this field alters itself, you must still supply the correct drive letter

Note: the paths listed in the Destination Panel are path names that make sense to the SpClient machine, not to the Shepard machine. In other words: in the Breaklog edit box in the Destination panel, I enter "Z:\AUDIO". This Z drive is the Z drive on the SpClient machine. This Z drive has nothing to do with the SHEPARD machine.

When you get to the INDEX box in the SOURCE panel, enter the index path used by the SMARTCASTERS at the HUB site. This is the path from which SHEPARD takes the source index.

Example Entry:

Station Setup Info	
<p>General Information:</p> <p>Call Letters: KAAA</p> <p>Group: Hubville</p>	<p>Source Files:</p> <p>Index: D:\index</p>
<p>FTP Information:</p> <p>Group Path: C:\Stations\Hubville</p> <p>Stations Path: C:\Stations\Hubville\KAAA</p>	<p>Destination Path:</p> <p>Breaklog: Z:\Audio</p> <p>Function: Z:\</p> <p>Fctn Idx: Z:\KAAA</p> <p>Index: D:\index</p>
<p>Done Cancel</p>	

When finished with each entry, click on DONE.	The Station Setup Screen disappears.
Repeat these steps until there is one entry for each station in the whole spider system.	

That completes the work for the Shepard Machine, but does not complete everything necessary for the hub site. The next thing we need to do is configure the dedicated production unit.

To Setup the Dedicated Production Unit:

Exit to the C> prompt and type CD\LANTASTI and press [ENTER]	The prompt changes to C:\LANTASTI>
Type EDIT CONNECT.BAT and press [ENTER].	The DOS Editor shows the contents of CONNECT.BAT
<p>In the NET USE/REPLACE section of the CONNECT.BAT, add a line that logs into the Shepard machine.</p> <p>This example assumes that the Shepard machine is called NT-SPIDER on the network. If your machine name is different, please substitute its name for NT-SPIDER.</p> <p>Note that I am also assuming that S:> drive is free on the network. Again, it is not, you'll need to substitute a drive letter that is free.</p> <p>Add the line:</p> <p>NET USE/REPLACE S: \\LT-SPIDER\C-DRIVE</p>	The line appears as you type it

Now select FILE>Exit	A message box pops up saying, "Loaded file is not saved, save it now?"
Answer YES by pressing the "Y" key.	The DOS editor closes
Type the word CONNECT and press [ENTER]	The system re-connects to all network drives including the newly created S: drive.
Type GSETUP. It may be necessary to enter a password here. If you are prompted for a password, call SMARTS to get it.	The setup screen appears
Option 1 states: <i>Is the internet "gateway" mode active on this system?</i> Type 1 and press [ENTER]	The Cursor is now under the N
Type Y and press [ENTER]	Option 1 now shows a "Y" under the value column.
Type 2 and press [ENTER]	The cursor appears under the value entered into the "Drive Letter where \Stations Directory is" entry.
Type the drive letter entered earlier in the CONNECT.BAT for the LT-SPIDER C:> drive. Using our example, we'd type "S" and press [ENTER]	The letter appears in the VALUE column
Press [ESC]	The Setup screen Disappears
Note: Number three in this setup screen on the dedicated production machine should be set to No. This option is for use by machines other than the dedicated production system. See the next section for details on this type of setup. Type GO and press [ENTER].	

To Enable All other machines to be able to transfer audio via Spider

While the dedicated production room unit is able to record audio specifically for Spider transfer, it is still possible for other SMARTCASTERS to send cuts via Spider. They have one **major** limitation, however. Any audio sent by the non-dedicated production unit is audio that is in the local spot inventory for the hub station. Most of the time this limitation is not a big deal, but it could be a big hassle if the client station and the hub station have a spot-number conflict (i.e. 00131 is a different account for each station).

To set this up, do the following:

At the C> prompt of the SMARTCASTER (not the dedicated production room unit), Type GSETUP and press [ENTER]	The setup screen appears
Make sure that Option 1 is set to N. Next type the number 2 and press [ENTER]	The cursor is blinking under the second item in the VALUE column

Enter the drive letter that is re-directed to the C> drive of the SPIDER ("S" in our example) and press [ENTER]	The Drive letter appears
Type the number 3 and press [ENTER]	The Cursor appears under the third item in the value column
Type "Y" and press [ENTER]	The third option is now set to Y
Press [ESC] to exit	The setup screen disappears
Type GO and press enter	The Main menu appears

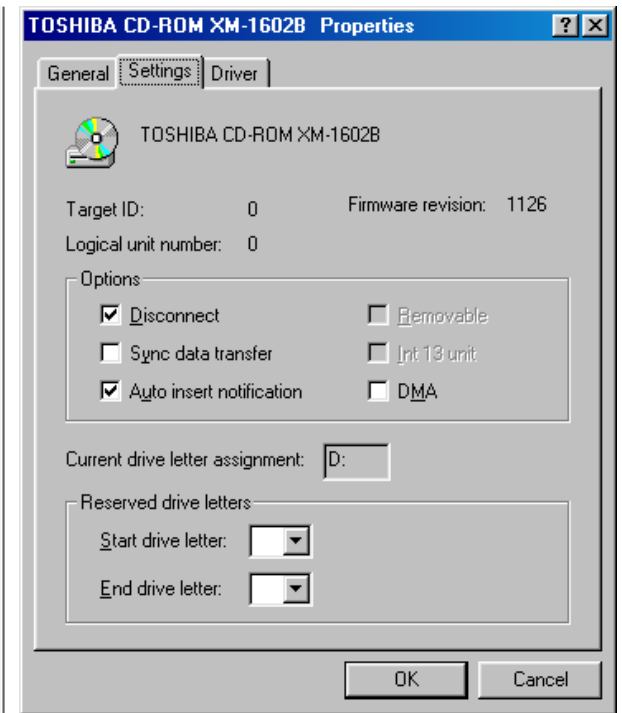
This concludes all the setup that is necessary for the Hub system. The next topic is what to do at the client station.

Once again, I'll make the assumption that you have a Windows machine with Lantastic already loaded and running. Dial-up networking must be installed and operating on this unit (if they connect to the internet via modem), but it is not necessary to install Net-Pal. The SpClient systems log in to the Shepard machines at set intervals. If a line disconnect occurs during one session, SpClient discards that session and tries again during the next login.

To Move the CD ROM to another Drive Letter:

The SpClient system must have its drive re-directions the same as the re-directions on the SMARTCASTERS. Unfortunately, Windows defaults the CD-ROM drive to the first available drive letter (usually D). Before we do anything else, we have to move the CD-ROM drive letter to allow us to make up the drive re-directions.

Right Click My Computer	A popup menu appears
Left Click Properties	The SYSTEM Properties dialog appears
Click on Device Manager	A list of system devices is shown
Click on the + sign to the left of CD-ROM	A list of CD-ROMs installed on the system appears.
Click on the CD-ROM whos drive we wish to change	The CD-Rom is selected
Click on Properties	The CD-ROM's properties are shown
Click the SETTINGS Tab	The settings are shown:



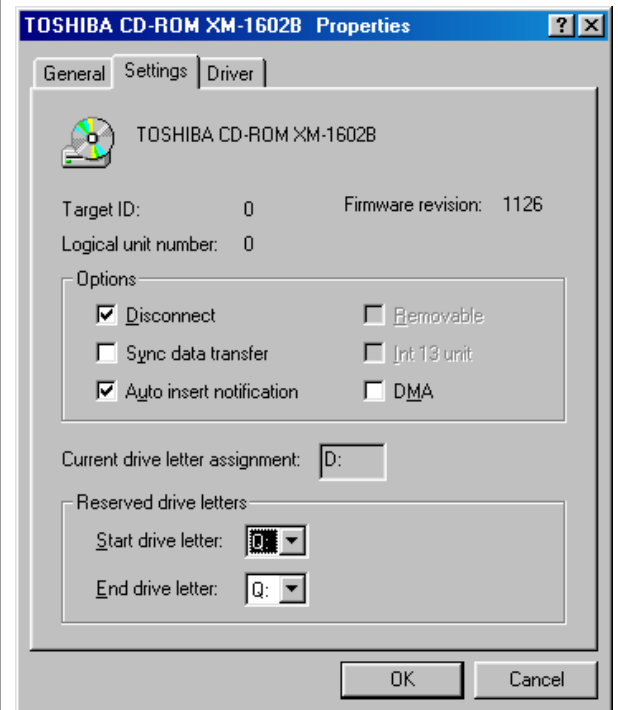
Select the down arrow to the right of START DRIVE LETTER.

A list of letters appears

Choose the drive letter you wish the CD-rom to use. The letter has to be one that is not used by the SMARTCASTER.

That letter appears in both boxes:

For example, if the SMARTCASTER were using drives D, E, F, G, H, X, Y and Z, none of these letters could be used for the CD-ROM on the SpClient. For our example, I'll use Q:.



Click on OK

The system will re-boot with the new drive settings intact.

Now that the CD-ROM is out of the way, we have to connect the SpClient system to the LAN network. Remember, all drive letters are in common with the SMARTCASTER's redirections.

To Re-Direct drives in Windows:

Step 1 is to determine what drives are on the SMARTCASTER, and what mapping it uses.

If the SMARTCASTER(s) are already setup, go to the SMARTCASTER unit and select QUIT > ABOUT.

Within the ABOUT screen, press the "N" key. This shows the contents of the SMARTCASTER's CONNECT.BAT.

Now, page down to the end of this file listing until you see entries such as this:

Net Use/replace d: \\server\d-drive

Net Use/replace e: \\server\e-drive

...

Write down this list of drive re-directions. When you're done, take the list to the Spclient machine.

Now Right Click Network Neighborhood

The Network Neighborhood dialog box appears.

This shows you a list of computers that the Spclient machine sees over the LAN network.

Refer to the list of drives. Find the machine names on this list. The machine names are the name after the "\\" portion of the command

Now, double click the machine's icon.

A box opens showing you the contents of that machine. All hard drives and printers that are being shared by the machine are displayed here as file folders.

Find the first drive that we need to connect the SpClient machine to.

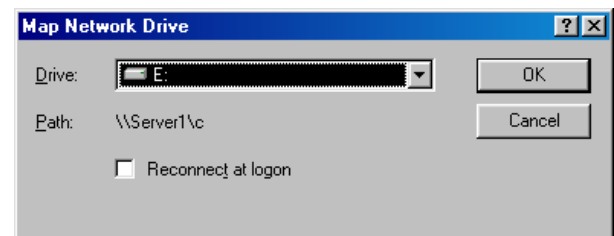
(In our example D: is connected to \\SERVER\D-drive, so we want to locate the folder called D-drive)

Now **RIGHT** click the ICON

A popup menu appears

Left click on the option entitled MAP NETWORK DRIVE

This box appears:



The Drive box should already have the first drive available on your system. If this is not the correct drive, click on the down arrow to the right of the drive box and choose the correct one.

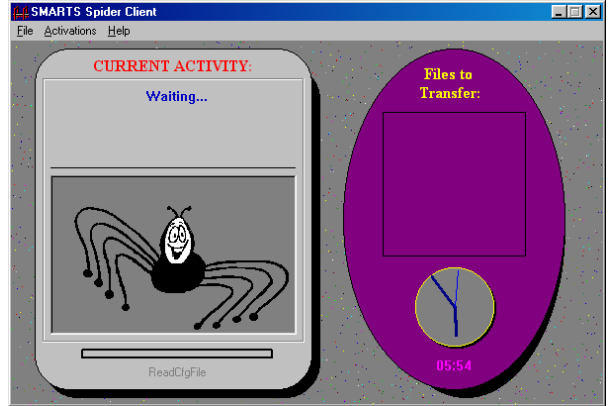
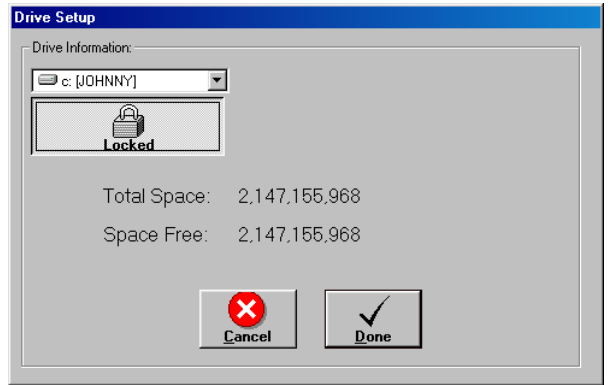
Once you've verified that the drive letter is correct, check the box to the left of Re-CONNECT AT LOGON.

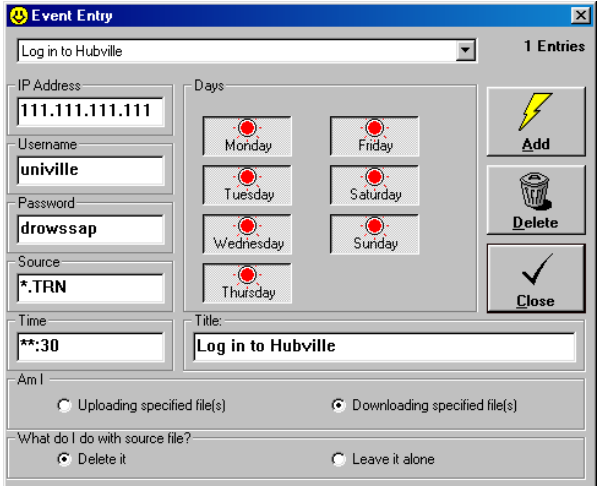
A check mark appears in the box. If there is already a check in the box, there is no need to click it.

Click on OK	The "Map Network Drive" box disappears and the contents of our new drive appears.
Click on the "x" in the upper right hand corner of this box	The box disappears
Repeat these steps as necessary to map all of your network drives.	

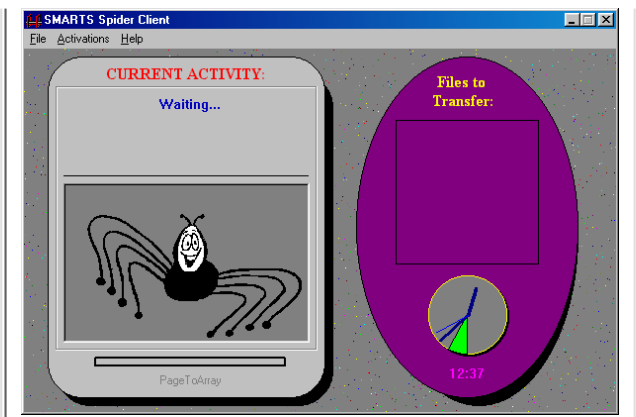
Most SpClient machines connect to the internet via Dialup connection. If Dial-up networking has not been installed on this machine, please follow the previous instructions on how to setup dialup networking. Likewise, if a new dialup connection must be created, do so now according to the instructions for creating a new dialup connection.

Once all these steps have been completed, the SpClient machine is prepared. All that remains is to setup SpClient. Follow these steps:

Follow the instructions earlier on how to Add a new dialup connection	
Run the SpClient SETUP.EXE program	A standard Windows setup dialog appears. Please accept all defaults.
Now, run the SpClient program by clicking on START>Programs>SPCLIENT> SPCLIENT.	<p>The SpClient program appears:</p> 
Click on File>Dive Setup	<p>The Drive Setup dialog box appears:</p> 

Choose C: drive and click the LOCK button	The button presses in and appears locked. This prevents Spider from seeing C drive as a valid drive to which audio could transfer.
<p>Our goal is to lock out all drives that are seen by the SpClient machine that are not used by the SMARTCASTER to store audio. Usually, this is limited to the C drive of the SpClient machine as well as its CD-ROM drive.</p> <p>Now that we have C> drive locked out, select the CD-ROM drive by Clicking on the down arrow to the right of the Drive information box.</p>	A dropdown box appears, listing all drives seen by SpClient
Scroll down until you see the icon of the CD-ROM drive. Click on this Icon	The dropdown box disappears and the CD-ROM is selected.
Click on the LOCK button.	The CD-ROM is now locked.
Now click on File > Add or Edit an Event	<p>The Add/Edit screen appears:</p> 
Click on ADD	The cursor jumps over to the blank under IP ADDRESS.
Enter the IP address of the server system. This number is provided by the internet provider of the Shepard system. The IP Address usually has four sets of numbers separated by periods (such as: 111.111.111.111)	The IP Address appears in the field as you type it.
Enter the Username (remember, no capital letters).	
Enter the Password	
<p>In the SOURCE blank, enter *.TRN (this time, use all capital letters).</p> <p>This indicates to SpClient which files it should download from the FTP file server.</p>	

<p>In the TIME field, enter in a time when you wish this event to occur.</p> <p>12:30</p> <p>If you wish this event to occur every hour, enter:</p> <p>** :30</p> <p>If you want this event to occur every ten minutes, enter:</p> <p>** : *0</p> <p>If there are several SpClient systems that log into one FTP server, it is a good idea to stagger the times that they do so. Tell the first SpClient machine to log in at :10 after each hour, the next SpClient to log in at :20 after each hour etc. That way the server stays as dedicated as possible to one client at a time and will decrease download time.</p>	
<p>The Buttons for each day of the week default to on. If for some reason, you want to exclude this event from a certain day, toggle that day's button to the off position.</p>	
<p>In the TITLE box, give this event a meaningful name. This is most useful for a station that has many different events to manage.</p>	
<p>In the AM I panel, indicate that you are downloading</p>	<p>The selection dot appears to the left of "Downloading specified files".</p>
<p>In the, "What do I do with the source file" panel, indicate that you want to "Delete it" by clicking on the circle to the left of "Delete it."</p>	<p>The selection dot appears within the circle</p>
<p>Finally, click on DONE</p>	<p>The Event Entry box disappears and the Spider client's main screen appears.</p> <p>If any of the events that you've scheduled fall within the current hour, you'll see a green pie chart slice on the clock within the "big purple egg" on the right side of the screen. This is just a visual indicator of when the next event is going to take place.</p>



The "happy spider" picture is the default picture that comes with the spider machine. If you have a logo or any other picture that you want to use instead, be sure that the file is saved in a BMP format. Then rename the file to a file called *SMLOGO* with no extension. Finally, copy the file into the C:\Program files\spclient folder.

When SpClient is closed and re-started, the new graphic will show instead of the spider.

Ok, now we have Spider's main functions up and online. A person who sits at the dedicated production room in Hubville can record an audio cut and transfer it across the Internet to any or all of the SpClient machines. But what if the person in the field has a spot that she wants to send to someone else on the network?

Setting up Lateral Transfer

To accommodate this need, something called LATERAL transfer was developed. Lateral Transfer is slower than normal internet distribution since it must send audio back to the hub station for re-distribution. Lateral transfer is intended for the occasional spot or sound bite. If the station is producing a large number of audio cuts for distribution across the Internet, it should house a Shepard system.

Setting up Lateral transfer involves changes at each of the client sites and the server (hub) site.

Lateral transfer works by allowing a SMARTCASTER that is hooked to an SPCLIENT machine to copy an audio cut across the internet and place it in the *stations* directories just as the dedicated production room computer does. This means that any audio cut that is sent to the hub is actually sent several times, so this process can be time consuming.

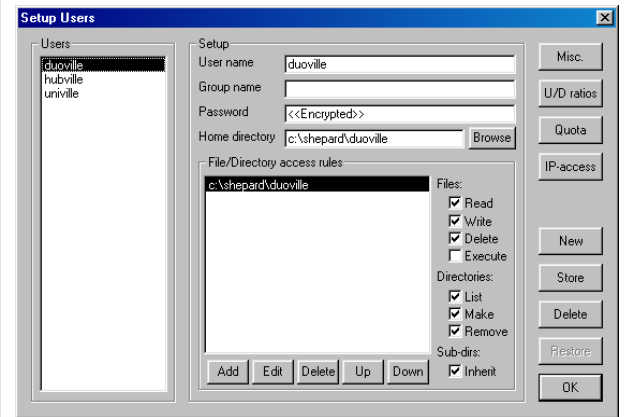
The first changes need to take place on the Shepard machine.

Double-Click on the Green "U" in the lower right-hand corner of the screen.

The SERV-U ftp file server appears

Click on SETUP > USERS

The Users Setup appears:



A lateral-transfer cut is sent via the internet back to the hub and straight into the "stations" set of directories. In order to make this possible, we have to create FTP accounts that connect to these station directories.

SMARTS's naming convention is to call these accounts the name of the town with the letter R in from of them (R for Reverse).

So, to setup our lateral transfer to Hubville, click on the NEW button

A box appears asking for the NEW NAME

Type in "rhubville" and click on Ok. (remember, no caps)

The Box disappears and account information for rhubville appears

Click on Password

The cursor flashes in the Password blank

Enter the password (no caps)

The password appears in the box

[TAB] down to "Home Directory"

The cursor flashes in the home directory box.

Type in C:\STATIONS\HUBVILLE then click ADD (from the bottom of the form).

The PATH NAME box appears

Enter C:\STATIONS\HUBVILLE and press [ENTER]

The box disappears

Be sure that the following items are checked:

- Read
- Write
- Delete
- List
- Make
- Remove
- Inherit

Be sure that execute is not checked.

Click on NEW and repeat these steps for each of the station group names

You'll see the names of the accounts appear on the left hand side of the screen in alphabetical order.

When finished, click OK	The User setup screen disappears.
Minimize Serv-U ftp sever by clicking on the "-" sign in the upper right hand corner of the form.	The form disappears

The last step for this machine is to follow the instructions for installing and configuring SpClient. Since we can lateral transfer, there must be a copy of the client software running on this machine to extract files sent by other stations. You will need to move the CD-ROM drive and set up all the drive re-directions on the Shepard unit. Even though this is still a Shepard unit, we also treat it as an SpClient machine.

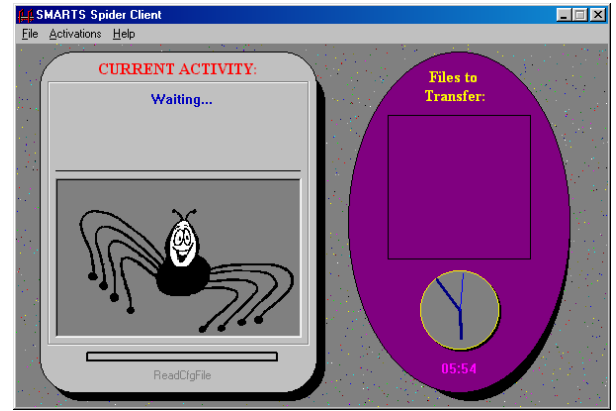
No other changes are needed at the hub end. The rest take place in the field.

On the SpClient machine, make sure that the C drive is shared across the LAN network. This drive will hold the STATIONS directory used for lateral transfers. Once the drive is shared, follow these instructions:

Click on START > Programs > MS-DOS prompt	The C:\WINDOWS> prompt appears
Type CD\ and press [ENTER]	C:> prompt appears
Type MD STATIONS and press [ENTER]	C:> prompt appears
Type CD STATIONS and press [ENTER]	C:\STATIONS> prompt appears
Now we need to make a directory for every station group except the group to which this SpClient computer belongs. We have no need to lateral transfer back to ourselves. In other words, if I am configuring lateral transfer in Univille, I do not want to create a directory for Univille. Let's assume that we are configuring the Univille SpClient system. Type MD DUOVILLE and press [ENTER]	C:\STATIONS> prompt appears
Type MD TRIVILLE and press [ENTER]	C:\STATIONS> prompt appears
Type MD HUBVILLE and press [ENTER]	C:\STATIONS> prompt appears
Type EXIT and press [ENTER]	The MS-DOS box disappears and you are returned to the Window's desktop.

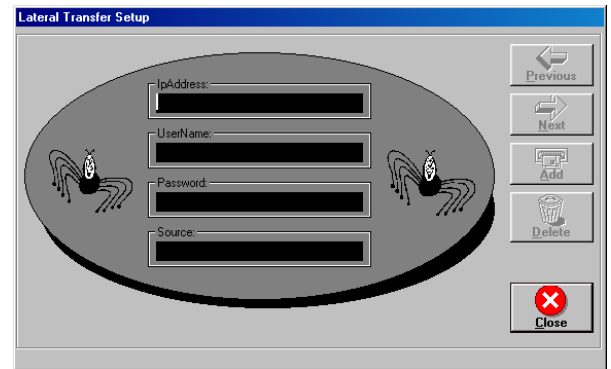
Now start the SpClient program

The SpClient screen appears:



Click on File>Add Lateral X-fer event

The Add Lateral Event screen appears:



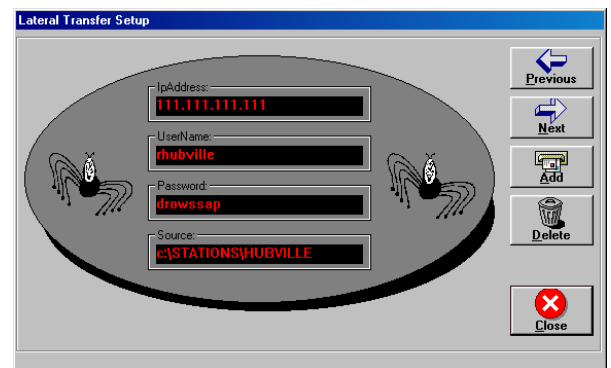
Enter the IP address of the server system into the first blank

Enter the username for the lateral account into the second blank (rhubville for our example).

Enter the Password into the password blank

In the source field, enter
C:\STATIONS\HUBVILLE

Upon completion your screen should look like this:



Click on CLOSE

The Lateral Transfer Setup box disappears

Click on FILE > Add Lateral Transfer Event

The Lateral Transfer Setup Box re-appears

Repeat these steps as necessary until you have created an entry for each station group (except the one that owns the spClient machine you are programming).	
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On each of the SMARTCASTERS at the client location, follow the steps outlined above for "To Enable All other machines to be able to transfer audio via Spider." Once these settings are entered, a SMARTCASTER can send a cut from Cut Manager to any other system on the Spider network.

Common problems and trouble-shooting Spider

The Spider system performs many functions and depends on several key pieces being in place. The following are tips and tricks to help diagnose problems with the Spider system.

Cannot Write Socket errors.

This may be translated as: Cannot see across the internet to the FTP server. There are many things that can cause this problem. Among these include:

- The modem is turned off or unplugged
- The modem is plugged into a non-dedicated phone line and someone else is using the line
- You're not logging in correctly. Be sure that your username and password are set up correctly in NETPAL. (See instructions above).
- Your internet provider is down for maintenance. Pay attention to e-mails that you get from your provider. Most providers take extreme care to prevent downtime, but, in order to do this, they must periodically take down servers on purpose to maintain them and update software. Most will e-mail a planned outage schedule (especially if you request one from them).
- The Hub internet provider is down (same reasons)
- The Internet is too slow. If you hit this error anywhere from 3:30 pm to 7:00 pm (aprox), it is likely that one of the Internet providers (Hub or Client) is swamped with people logging in to their service. It is possible that during such peak times that transfer rates could slow to a dead halt eventually forcing the client to give up trying.

I can connect and I can see files download, but when they are trying to transfer across to my SMARTCASTER I get a RUNTIME Error 76.

Click on OK to clear the SpClient out of the way. Now click on My Computer. Check to make sure that there are no large red "X" marks through any of the drive letters. If there are, double-click each of them to see if Windows can re-establish the network connection. If it is successful in re-establishing the connection, the contents of the drive will appear in a box (just click on the "x" in the upper right hand corner to clear this form and repeat these steps for each of the drives).

If all else fails...

Try re-booting the computer. Spider makes use of both hardware and software and it is a good idea to re-boot the system occasionally (perhaps once a week) to ensure reliable operation.

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