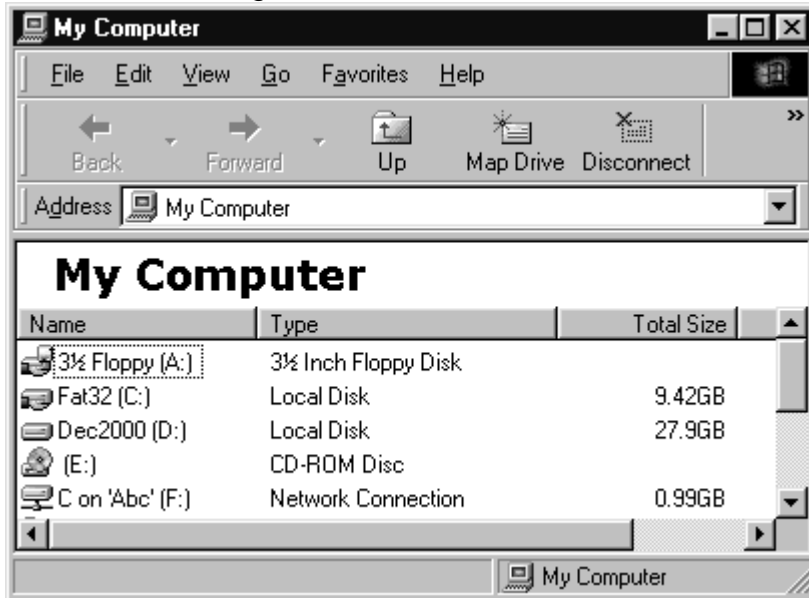


Windows Networking, Tim Harvey Ticketing and the infamous “ERROR 76 at 2”

Windows allows an inexpensive way to link computers together. This provides you with a way of having more than one sales station or to print reports in your office. The basics of networking are simple. As an example, here is an explanation of how two computers are linked together for a master ticketing station and a slave sales station.

If you double click on the “My Computer” icon on your Windows desktop, you will get a window something like this one:



Each disk or drive holds files with information. The “(A:)” disk is always a floppy disk, usually the 3.5” plastic disk that is inserted in a slot in the front of the computer. The “(C:)” is the main hard drive of the computer, where most, if not all of the files are stored. A “(D:)” disk can be either a second hard drive or a CD-ROM Disk. The “type” column will tell which type of disk it is. “(E:)” in this case is a CD-ROM Disc drive.

When you have a network card installed and Windows networking active, there is another type, called “Network Connection.” In this example, I have another computer called “Abc” and the “(C:)” drive on it is available for access on this computer as a “VIRTUAL” drive called (F:).”

At the bottom of the little icon for this Network Connection there is a little pipe or wire with another pipe coming up to indicate a connection pipe from the disc drive to other computers in the network. The color of this pipe is important. If it is red colored, the disk cannot be accessed from this computer.

TSS programs are “DOS” based programs. They expect to see disk drives labeled according to the “DOS” conventions (A: = a floppy disk, C: = the main hard disk, other disks have drive letters up to “Z”)

When the TSS programs first start, they look for an “initialization” file. This file sits in the same directory or folder as the program, and tells it where to find files, what the name of the


Windows Networking, Tim Harvey Ticketing and the infamous “ERROR 76 at 2”

theatre is, and other information. This is important, because it allows flexibility and the possibility of networked programs.

The .ini (initialization) files are ONLY viewed or edited using the DOS “Edit” program. Using Windows notepad, wordpad, or a word processor or spreadsheet to modify the files will destroy them. Here is the first part of the ticketing initialization file for a stand-alone ticketing system. Note the three “C”s one above the other. These tell the program to look for program files on drive C, look for data file segment 1 on drive C, and data files segment 2 on drive C.

Why are there different areas? The program files run fastest when run from the local C drive. The data files are only found on the “Master” computer. Remember in ticketing, when a ticket is sold, the serial number of the ticket must be found and printed, and then the data file updated to reflect the sale. When more than one computer is used to sell tickets, they must share certain files including the serial number files.

By separating out the data from the program, things are simpler and networking is possible.



```
MS-DOS Prompt - EDIT
8 x 12
File Edit Search View Options Help
C:\tss\tss.ini
ICUER001.REQ
ICUER001.ANS
C
C
C
video
boxrpts
Showplace, Fast Section 1
```

By now, you may have guessed that if this was a slave computer, the second and third “C”s would be “F” to reflect the network connection to the other computer.

The “Master” computer is always the computer that contains the data files. Any computer selling tickets without having its own local set of data files is a slave. TSS always recommends that the master computer be the primary box-office ticketing computer. That way if any problem occurs with the network, the theatre can still sell tickets.

As you can see from the .ini file above, and the explanation, the ticketing program has nothing to do with the way the computers are networked, and only looks for files the same way it would on a single DOS based computer.

What happens when the program can’t find the files because the network connection is broken or the master computer is turned off or locked up? The ticketing program finds the .ini file, which is file #1 to it. It then cannot find the next file it looks for because the drive isn’t available. This is file #2. It then returns a standard DOS error for display to tell of the trouble. That error is error 76, “path not found,” meaning it can’t find the path to get to the files. The

Windows Networking, Tim Harvey Ticketing and the infamous “ERROR 76 at 2”

program then displays “ERROR 76 at 2” six times and stops itself. If the program is the sales screen, depending on the program version it may say instead “NETWORK DOWN - REBOOT!”

Once you have those dreaded words, YOU have to find out what is wrong. Neither the program nor the computer can completely diagnose what is causing the problem. While TSS might be able to lend words of encouragement or take guesses over the phone, ultimately it will be you that solves the problem.

What can go wrong? Here is a list of common problems to check:

- 1. Master computer turned off, in “sleep” mode, or locked up.
- 2. The network “hub” may have had its power supply plug removed or the power turned off.
- 3. On startup, someone may have answered “NO” to the question that sometimes appears “reconnect at logon?”
- 4. A network cable can be unplugged on the slave computer or the end of the cable that plugs into the hub, or the network cable on the master computer or where it plugs into the hub may be disconnected.
- 5. The cable may have been damaged or cut by a cleaner or someone moving items or by any of a number of ways including mice.
- 6. A network card or the hub may have gone bad.
- 7. The files on the master computer could be damaged by a virus or failing drive mechanism.
- 8. The “protocols” of the network may have been deleted or changed.
- 9. The name of the workgroup or master computer might have been changed.
- 10. Bill Gates Windows system may be having a bad day.

The process of finding and correcting the problem(s) can be easy or frustrating. ***There are a couple of things you can try that sometimes solve the problem immediately.***

Shut off the master computer and the slave completely. Restart the master computer and wait until Windows is fully loaded. When that computer is finished, then start the slave computer. This will allow the slave computer to immediately “find” the shared drives on the master computer.

If the above doesn’t work, go to the slave computer and double click on the “My Computer” icon. If you see the network connection drive has a red “Y” under it, double click on its icon, and then double click on the “C” folder icon that should appear. If a list of files appear, close the “My Computer windows and open the slave ticketing program normally.

If that doesn’t work, and the cable connections appear tight and the hub has power, it is time to get into more serious troubleshooting. This will require a better understanding of how Windows networking works. Don’t worry, this won’t get too technical.

Windows Networking, Tim Harvey Ticketing and the infamous “ERROR 76 at 2”

To get two computers to talk to each other they need a common language. The language within a single computer is DOS (disk operating system -meaning that it starts from a disk) or Windows, which is based on DOS or Linux, etceteras. The common language between two computers is called a NOS or network operating system. The internet uses a NOS called TCP/IP. We will be using a simpler system called NetBEUI (net-boo-ee). Other than knowing that this is a language and that it must be loaded on all computers in the network, that is all you need to know about the NOS other than how to load it.

In addition to a common language, computers need hardware to talk with each other. To talk to computers over the internet, a modem is used. To talk to different computers within a building each computer must have a “NIC” (Network Interface Card). These cards plug into the computer slots and provide a jack that looks like an oversized telephone jack. Do not use NICs that must connect using a co-ax wire (the wire will look like cable TV wire). Ask for 10 base T or 100 base T NICs and wire instead. The NIC will have software that comes with it. Whoever installs the NIC will load the software at that time. Unless someone overwrites the software, you can consider that part of the setup a socket for the network on your computers. Other than being able to determine that the NIC is connected and working properly, that is all you need to know about NICs.

The 10 base T wires that you plug into the NICs will plug into a hub. This is a powered box with lights on the front and network sockets on the back. It will be small, sometimes the size of a couple packs of cigarettes, sometimes larger. There will be a small DC wire and power brick that connect it to the power. Any signal that comes into the hub gets sent out of the hub on any other connected wires. There is only one thing to be concerned about with a hub other than making sure it has power and there is a green light for each wire. One socket on the end will say “uplink.” Don’t plug a computer into this socket. The uplink socket allows one hub to connect to another. The uplink socket of one hub would be plugged into a regular socket in the next hub. That is all you need to know about hubs.

10 base T or 100 base T wire (also known as CAT5 10 base T, etc.) If possible, use color coded wires. Make sure the connectors are on tight and have good clips. Make sure the cable is placed so it doesn’t get nicked or crushed or run near neon lights or fluorescent lights. The two types of wire look the same. Get 100 base T if possible and use 100 base T compatible NICs. If only 10 base T is available, that is fine too. That is all you need to know about cable.

Now that you know the parts in a network, you need to know how to connect everything together. If you follow these directions, it is simple.

First, install the NICs and the NIC software.

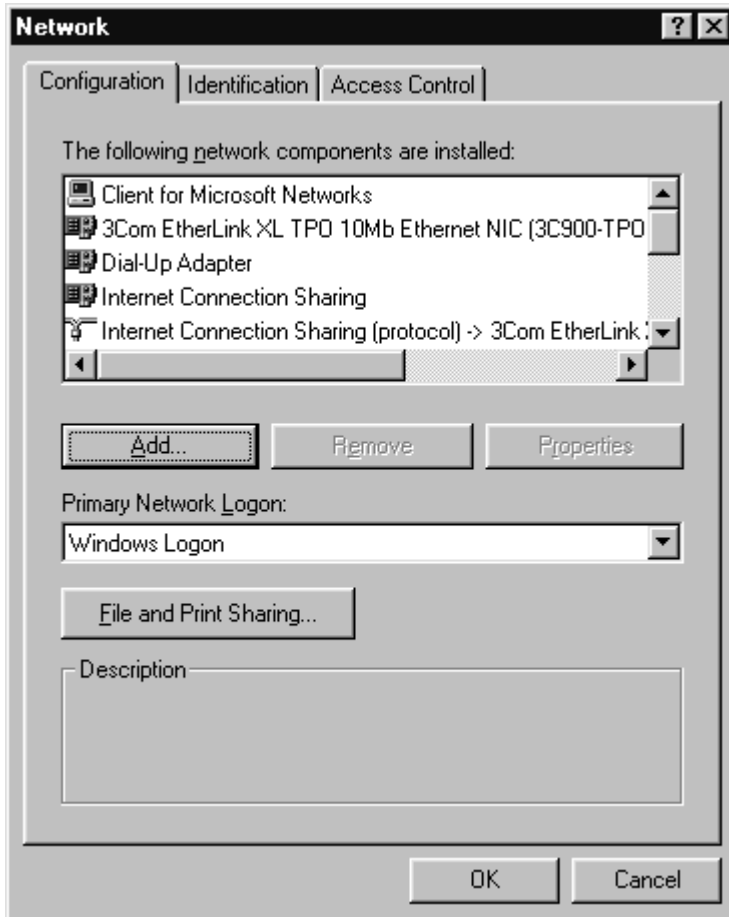
Next connect the cables from the NICs to the hub and plug in the hub.

Third, have your Windows CD-ROM available and go to the Master computer (the one that will have all of the data files and be box-office station #1).

Windows Networking, Tim Harvey Ticketing and the infamous “ERROR 76 at 2”

From the Windows desktop, click on “START”
Click on “Settings”
Click on “Control Panel”
Find the icon and word “Network” and double click on it.

You will see a window similar to this:



The four important things you will need for network components are:
Client for Microsoft Networks
The green icon with the name of your NIC to the right
The protocol “NetBEUI ->” with the name of your NIC to the right
File and printer sharing for Microsoft Networks.

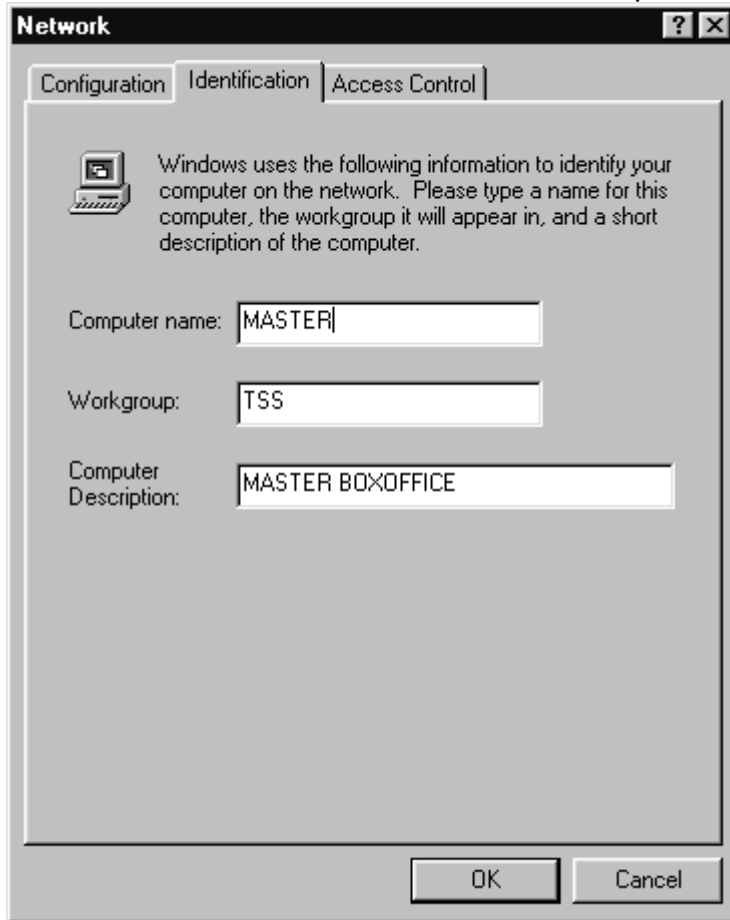
KEEP THE “Primary Network Logon” as “Windows Logon”!!! The first two items are already in the text box if the NIC has been installed properly and is working.

Click on the “Add” button below the text box to add any missing components. NetBEUI is a “protocol” by Microsoft. File and printer sharing for Microsoft networks is a “service.”

Once you have the four components installed, click on the File and Print Sharing button. Check the box next to “I want to be able to give others access to my files.” Then click on “OK”

Windows Networking, Tim Harvey Ticketing and the infamous “ERROR 76 at 2”

Next click on the “Identification” tab at the top of the Network window.



Make it look exactly like above. Slave computers will have the same TSS workgroup, but be named slave 1, slave 2, etc.

Click on the tab called “Access Control and darken the radio button by “Share Level Access Control.”

Click on OK. Windows will want to restart the computer. Let it.

While it is restarting, here is what we have done:

We gave the computer a language (NetBEUI)

We enabled services to allow us to use the network

We established that the NIC was installed and working

We gave the workgroup a name other than the default name

We gave the computer a name that indicates what it does

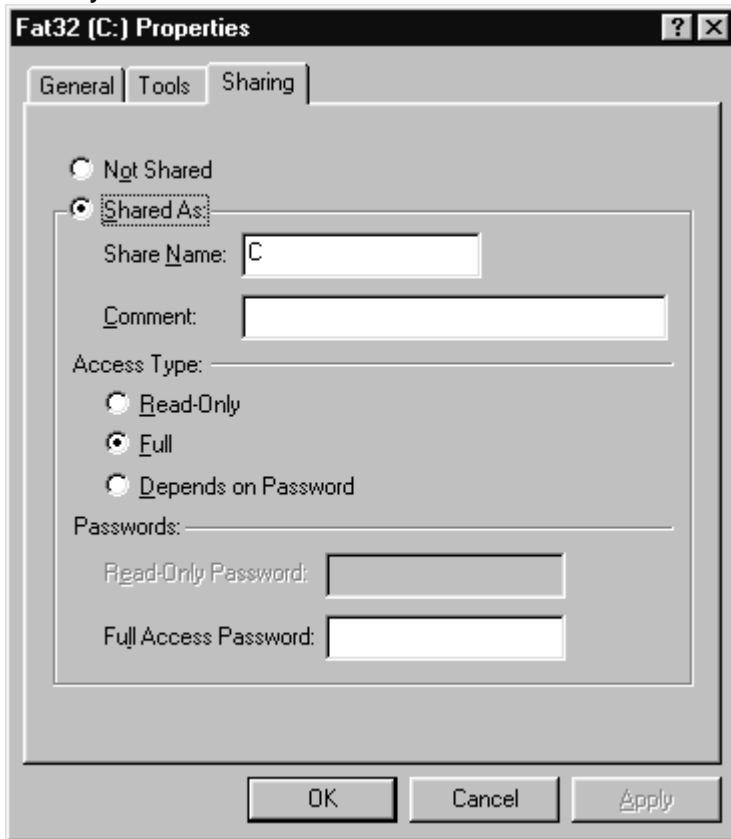
We told the system how we want to share files.

There is only a little left to do on this computer. In order for the slave computers to read and write to the data files, we must state that we want to share the C: drive of the master.

Close the network and control panel windows once the computer has rebooted and reopen the “My Computer” window.

Windows Networking, Tim Harvey Ticketing and the infamous “ERROR 76 at 2”

To share the C: drive of the master, highlight the C: drive icon and RIGHT click with the mouse to bring up a pop-up menu. Select “Sharing” and a window will open. Make it look exactly like this:



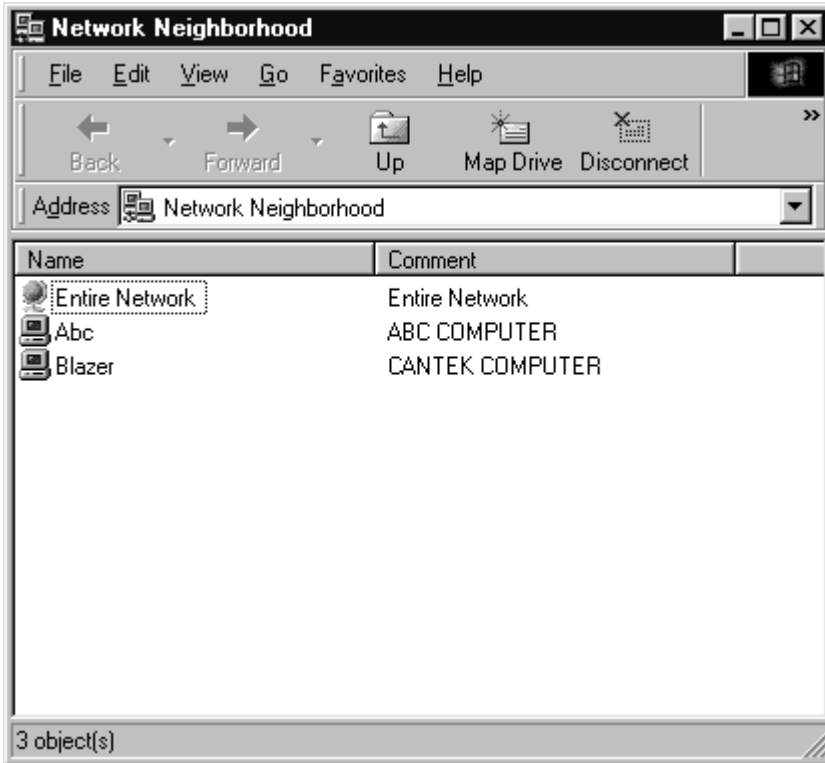
Then click on OK. After a few seconds, the icon for the C: drive will have a little hand under it, indicating that the drive is shared.

At this point, the master computer is good to go for networked ticketing. Let's move on to the slave #1 computer. Follow the same instructions as above but don't bother to share the C: drive of this computer. You won't need it and sharing un-needed drive will slow the boot-up of the computers and make life complicated.

Once you have all network components installed and the slave computer named slave 1 rebooted, double click on its “Network Neighborhood” icon. Windows ME users will find the icon has a slightly different name and may operate slightly differently than described here.

You should see a window like this but with the computer names of “MASTER” and “SLAVE” If you only see an icon for “ENTIRE NETWORK,” make sure the hub is on and both computers are on and connected to the hub, then click on “VIEW” / “REFRESH” or double click the “Entire Network” Icon. Both computers should show up.

Windows Networking, Tim Harvey Ticketing and the infamous “ERROR 76 at 2”



If you can't make both computers show up, use the help button and select network troubleshooting or the network topics for more detailed help.

Assuming you have both computers visible, double click on the “MASTER” computer. A window will open. The Name at the left will be “MASTER” and only the “C” folder will be visible.



Windows Networking, Tim Harvey Ticketing and the infamous “ERROR 76 at 2”

Highlight the C folder and right click on it. A menu will appear.
Click on “Map Network Drive”

A window similar to this will appear:



The drive will normally come up as D: if you don't have a CD-ROM installed and E: if you do. The “Reconnect at logon” box **MUST** be checked to allow the computer to boot and connect to the master. The Path on your screen should show as:

\\Master\\c

Remember the Mapped drive letter (D:, E:, F:, whatever) and click on the OK box.

Congratulations, Windows networking is now installed for use with the ticketing program!

As you remember, the tss.ini file in the tss directory of this computer must have the correct drive letter to access the data files. If you haven't installed the slave ticketing software, we can do that at the time of installation. Otherwise you will need to edit the file.

To edit the tss.ini file follow these instructions exactly. If you make a mistake **DO NOT SAVE YOUR CHANGES**. Only save the changes if you are sure you followed directions exactly.

Close all windows and click on “Start”

Click on “Programs”

Click on “MS-DOS prompt”

A black window saying WINDOWS will open up.

Type the following

```
CD\\TSS
```

and press the [Enter] key. Note that the backslash (\) is a different key than the slash (/) which is under the question mark on the keyboard.

The window will now say

```
C:\\TSS>
```

Type the following

```
EDIT TSS.INI
```

and press the [Enter] key.

A blue screen will appear that looks like the one in this set of instructions.

Press the down arrow five times

Press the right arrow once

press the backspace key once

type the letter of the mapped network drive and **DO NOT** press [Enter]

Press the down arrow once

Press the right arrow once

press the backspace key once

Windows Networking, Tim Harvey Ticketing and the infamous “ERROR 76 at 2”

type the letter of the mapped network drive and DO NOT press [Enter]
Use the mouse and click on “File” in the gray area above the blue.
Click on “Save” only if you followed instructions exactly
Click on “File” again.
Click on “Exit”

The .ini file has been updated. Type
TSS

and press the [Enter] key and the ticketing program should start if the security device is attached or the slave program was registered and locked to the hard drive.

Setting up a shortcut icon to the program and setting the printer port settings is beyond the scope of these instructions.

By reading the instructions you should now understand that the slave must connect to the master, and information must be exchanged when a ticket is sold or the program loads. You should also understand the function of each of the components of the network.

By having the instructions available, you now know the procedure to go through if someone has answered “NO” to “reconnect at logon” and the mapped network drive has been dropped and is no longer visible. You will simply remap the network drive by starting at “Network Neighborhood,” finding the Master, finding its C: drive, right-clicking it, and remapping it to the proper drive letter.

If the problem is more serious, you will be able to check each component and discover unplugged hubs or network cables, and be able to use windows help to find solutions to other problems. Finding problems can take time, but always look for the simple things first. 90% of Windows network problems can be traced to a drive that has lost its mapping, a user using the network logon instead of Windows Logon, and then pressing “escape” or “cancel” instead of “Enter” thereby bypassing the loading of the network entirely, or a loose cable or unpowered hub.

If you get the “ERROR 76 at 2” message now, you can join me in a chorus of “Darn Bill Gates!” and quickly fix the root of the problem without having to make a support call and have me guess at which problem has occurred.

Addendum:

Networking concession terminals is set up a little different. Each concession terminal is a stand-alone terminal, with its files located on the same drive as the program, in the “C:\CONC” folder or directory. The CMASTER.EXE program in the “C:\CONC” directory of the office computer uses the CMASTER.INI file to find the appropriate drives and directories of the various terminals. Note that this setup allows each terminal to continue sales if another is not working, and neither the concession nor the ticketing programs require the manager’s office computer to share files with another computer.