

NETWORKING TAXWISE for TAX-AIDE
For Windows XP Professional or Windows 2000
(modified to allow for TrueCrypt Volumes and AVG 8.0 Firewall)

Why?

Security:

- Only one computer contains taxpayer data.

Convenience:

- Only one computer needs TaxWise updates.
- Only one computer needs to be backed up.
- All connected computers have access to all returns.
- Printer sharing is easy – no printer switch boxes are required.
- Counselor computers can be used at multiple sites
- Counselor computers do not have to have TrueCrypt or other encryption software

When?

Any time a site uses two or more computers.

How?

The following pages show how to set up for networking.



There is a wealth of information in both Windows Help and on the Internet on how to set up networks. Virtually all the help assumes a basic "Home" network set up to provide shared access to the Internet from a few computers.

Windows also provides "Wizards" to help set up a home network with a focus on Internet access.



Networking for TaxWise has some different requirements.

Avoid using any of the Windows Networking Wizards.

Stick to the instructions listed below.

FULL WIRELESS NETWORKING of TAXWISE IS NOT PERMITTED or SUPPORTED BY THE IRS, UTS, or TAX-AIDE.

WIRELESS NETWORKING TO SHARE A PRINTER IS ALLOWED. However SUPPORT is NOT AVAILABLE from CCH or the IRS. See WIRELESS PRINTING on the AARP Tax-Aide ExtraNet

[Changes in this document relative to the 1/31/08 baseline are shaded gray.]

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A network can have two or more computers. Generally there is one printer, but there can be two or more. Two computers are connected using a Crossover Ethernet Cable. More than two are connected to a network router or a network switch using standard Ethernet Cables.

The most powerful computer is generally chosen for the TaxWise server if full networking is to be done. Use a computer with XP-Pro if possible. XP-Home does not have the networking capability of XP-Pro and supports fewer workstations. Complete all Windows Updates before doing the network setup.

Almost all the steps that need to be taken are in the computer setup. Be sure that the network is working before you attempt to configure or use TaxWise. The TaxWise program can be already installed on the computers, or not. Every computer connected in a network can be used for doing tax returns.

A network can be split into two or more sections if physical space is such that too many cables need to be run. Multiple network switches can be connected using a single Ethernet cable between each switch. Computers are connected to the switches as needed based on physical layout.

Part 1 of the instructions **applies to all computers.**

Part 2 has instructions for **connecting computers** and configuring them just **to share a printer.**

Part 3 has instructions for **full networking of TaxWise.**

Appendix A has some equipment information together with some possible sources.

Appendix B has some troubleshooting information.

Appendix C presents AVG Firewall Use and Configuration.

Appendix D contains FAQs, Frequently Asked Issues and Answers

PART 1 - FOR ALL COMPUTERS

1. Windows accounts:

For the instructions that follow it is essential that all computers connected on a LAN have the same Windows account and password.

(If you have a good understanding of Windows Security and Networking then different accounts can be used.) For TaxWise installation and operation the accounts must belong to the Administrators Group. Most IRS and AARP computers come set with accounts in the administrators group, however if in doubt check.

Start > Settings > Control Panel > User Accounts. Each account will show which group it belongs to.

IRS Depot supplied laptops are preset with the Windows account and password to be used this year.

Windows accounts can be created if needed on either the AARP owned computers, or IRS Depot supplied. The quantity of each will indicate which ones to have accounts added so all units match. Adding an account is done in Windows Control Panel – User Accounts. See Windows Help if you don't know how to add an account.

IT IS MANDATORY THAT ALL WINDOWS ACCOUNTS HAVE A PASSWORD.

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2. Computer Name and Workgroup Name.

All computers on a network must have a unique name, and belong to the same workgroup.

IRS Depot supplied laptops will have a unique name, but it's not easy to remember – change it! Using the IRS Barcode Number is a good name choice, but anything can be used. Windows will tell you if you use an invalid character in the computer name.

The workgroup should be set to **VOLGROUP**. If it isn't then change it to **VOLGROUP** (*it is more secure than using the default Windows names*). The IRS depot computers supplied for TY2008 do require that the workgroup name be changed to **VOLGROUP**.

To change computer name and/or workgroup:

Right click on "My Computer" on the Windows Desktop. Click on Properties. Click on the "Computer Name" tab. There is no need to enter anything in Computer description. Click on Change. Type the Computer name. Recommendation is that you use the Asset Tag Number (Barcode Number) for the computer. Prefix with a "T" if it is an AARP computer with an all-numeric asset number. Any name will do – provided it is unique on the network. Make sure that the "Member of" section has Workgroup selected. Tab to the Workgroup field and enter **VOLGROUP** then click OK.

It is not necessary to restart the computer at this point, since it will be restarted at the end of this Part I of the instructions.

3. Disk Write caching (not doing this step will not affect the ability to network the computers – this is a precautionary step to minimize possible problems later)
(This step is needed on IRS Depot Computers this year)

(This step cannot be done on the AARP HP nx6310 laptops which use a different hard drive interface. Turning off write caching is disabled on these computers). Windows, by default, writes data to a disk through a disk cache (a temporary storage area in memory) to speed up overall disk access time. Under some circumstances due to a momentary failure of the network or a power source this can be a problem with networking and file sharing and could cause corruption of the TaxWise database.

To turn off the disk cache, double click on "My Computer", then right click on Drive C: and select Properties. Click on the Hardware tab. Select the hard drive so it is highlighted blue and click Properties. Click on the Policies tab. Uncheck "Enable write caching on this disk". Click OK twice then close My Computer.

NOTE – changes made to drive C will apply to any TrueCrypt volume that is created on Drive C (drive P and S)

4. Windows Firewall (Windows XP only, not applicable to Windows 2000)
(This should not need to be done on Depot Computers – they are delivered with the Windows Firewall turned off)

The Windows Firewall Service must be running, but turned off. When the AVG Firewall is used then the Windows Firewall is automatically turned off. However the Windows Firewall Service itself must continue to run, as this controls other aspect of networking beyond just the Firewall.

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In the Control Panel double click on Windows Firewall. If the service is not running Windows will tell you. It does need to be started. Select Off, even though it is not recommended, and click OK. (This is not a contradiction, as the Windows Firewall Service is separate from the Firewall itself and continues running in the background.)

5. AVG Firewall

The AVG Firewall has great flexibility in protecting computers from unwanted access. The AVG firewall should be active at all times. Instructions on how to configure the AVG Firewall are contained in Appendix C of this document. Disable the AVG firewall during initial network setup, then turn it back on using "Computer in domain" profile when the network setup is completed.

6. Firewalls and IRS Depot Laptops

IRS Depot supplied computers do not have Firewall software installed except for the built-in features of Windows XP. As previously noted the Windows firewall must be operational but turned off.

If a Depot laptop is to be routinely connected to the Internet then the Windows firewall must be activated for that connection time.

7. Network Connections.

(Some parts of this may need to be done on Depot Computers. It is not possible, in the image used by the IRS to configure their computer, to preset everything!)

In the Control Panel double click on "Network Connections". Right click on "Local Area Connection" and select Properties. Be sure you are on the General Tab.

In the section "This connection uses the following items" make sure that every item is checked. You may have to scroll down to see them all.

Click once on "Internet Protocol (TCP/IP)" and click on Properties.

Make sure you are on the General Tab and check both "Obtain an IP address automatically", and "Obtain DNS server address automatically". Click OK.

8. Still in Local Area Connection Properties make sure that "Show icon in notification area when connected" is checked, and "Notify me when this connection has limited or no connectivity" is NOT CHECKED. Then click OK. Select **Back** to return to the Control Panel.

9. Folder Options.

Double click on Folder Options and select the "View" Tab.

Make sure that "Automatically search for network folders and printers" **IS NOT** checked. *(We know what we want; we don't want windows to search for it).*

Also make sure that "Hide extensions for known file types" **IS NOT** checked, and that "Use simple file sharing (Recommended)" **IS NOT** checked.

*Note that Simple File Sharing is **NOT** a capability built into Windows 2000. Using Simple File Sharing does present a security risk – it is primarily provided for "home" networking and is the standard feature of Windows XP Home. In Windows XP Home Simple File Sharing is not changeable. However a computer running Windows XP Home should not be used as a server. It is acceptable for a workstation where file sharing is not required.*

Click OK.

10. **Power Options.** The setting will not stop networking, however we don't want the server computer to go into "standby" or "hibernate". This might happen if the

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server itself has no activity for a long time. It can also happen if running on batteries.

(Depot Computers will be set a little differently than AARP laptops The end result will be about the same EXCEPT for the "standby password" setting which you may want to change on Depot Computers).

Double click on Power Options. Under the "Power Schemes" tab set the Power scheme to Always On and click Apply.

Move to the Advanced tab. Make sure that "Prompt for password when computer resumes from standby" **IS** checked.

Move to the Alarms Tab. The settings when the computer was originally configured was for the Low battery alarm to trigger at 45% and to display a text warning. No other action. The Critical battery alarm was set to activate at 20% and the computer to Hibernate.

It is NOT recommended to run a computer in a network on battery power. It may happen by "accident" and the existing warning should suffice. However – the Alarm settings and action can be changed if desired. Click **Apply**, then click **OK**.

Restart the computer and log on to the Windows account you will use.

PART 2 - CONNECTING THE COMPUTERS AND SHARING A PRINTER.

1. Connect the Computers

If using just two computers, connect them using a Crossover Ethernet cable. If using more than two computers connect each of them to a router or network switch with standard Ethernet cables. Make sure the power supply for the network switch is plugged in.

NOTE: For convenience during the setup process everything can be done using just a crossover cable – one computer at a time – provided the "server computer" is always connected.

Depending on the make and model of the network switch used, a single light or a pair of lights should turn on for each connection. Close to the Ethernet port on the computer a small, generally green, light should turn on. The light just means that the network cards and the switch are communicating. It does not mean that the network is actually complete.

2. Network Connected Printers

Some printers are "network ready" in that they can be connected using a network cable. For those familiar with networking, this connection can be used. However it is recommended that the printer connection be either USB or Parallel. If you are using a network-connected printer, set the printer you will use for TaxWise as the Windows default printer on all computers on your network. Then skip ahead to Part 3 on setting up a network.

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3. Decide which computer will be the Print Server

The computer with the printer directly connected to it using either a parallel printer cable, or a USB printer cable will be the Print Server. It can be the same computer as the computer designated as the TaxWise server (recommended) or a different computer on the network.

There are both pros and cons of having the Print Server be the same computer as the TaxWise Server. If they are the same, only one server computer has to be up and running to provide all of the services needed by a client workstation. But if the print server or printer becomes confused and cannot be sorted out without restarting Windows for the Print Server, that restart is much more disruptive to an ongoing taxpayer session if the computer being restarted is also the TaxWise server. Either way will work. We recommend careful consideration of these trade-offs before making that decision.

If the printer driver needs to be installed on the Print Server computer do it now, following the manufacturers instructions, and physically connect the printer. The computer will recognize it. When done print a test page just to be sure.

The printer installation process will give the printer a generic name based on the printer model. It is better to give the printer a unique name so it is easy to recognize. If you have a network that has two HP 1022n printers installed it will be MUCH easier if they each have a unique name rather than both being called "HP LaserJet 1022n" or whatever the default name is. Names should be short and simple. For example LASER1, INKJET3, PRINT2, or something similar. To name the printer click on Start, move to Settings then Printers and Faxes. Click Printers and Faxes. Highlight the printer and right click on the name. Click on Rename and type the new name. Press the tab or enter key to finish the name change. Put a label on the printer showing its name (*Please don't write the name on the printer case with a marker pen, it's almost impossible to get off without damaging the plastic*).

4. Share the printer to the network

Right click on the printer name you want to share and select "Sharing". In the window that opens check "Share this printer". The printer name will show automatically to whatever it was named in step 2. Set the printer as the Windows default printer. Close Printers and Faxes.

5. Set all the other computers on the network to access the shared printer.

Before setting up the printer on all other computers the Firewall status must be checked on each computer. If AVG is installed the Firewall profile being used must be "Computer in Domain" or "Small home or office network" with the LAN network adapter marked "safe". Open the AVG user interface and look at the Firewall status. If it is not one of these profiles then see Appendix C for how to configure the Firewall.

Do this on all the connected computers that do not have the printer directly connected. Click Start, move to Settings then "Printers and Faxes". Click on "Printers and Faxes". Double click on "Add Printer". The Add Printer Wizard will start (it's OK to use this Wizard). Click Next. Select "A network

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printer, or a printer attached to another computer". Click Next. "Browse for a printer" will be selected. Click Next.

You should see the network information, VOLGROUP, and under VOLGROUP the name of the Print Server Computer. Under that should be the name of the shared printer that you want to add. If a line of information has a tiny + sign double click on it to expand the information. You may need to wait a short while for the two computers to find each other and the printer. If you cannot see the printer, double check the Firewall setting. Once you see the name of the printer highlight it and click Next.

If you cannot find the printer on the network try shutting down and restarting the computers. Always start the server first.

Windows will give a warning about printer drivers and viruses; just confirm that you want to go ahead. Then click "Finish".

It is a good idea to print a test page from each computer. On each computer, right click on the printer, select properties, and "Print test page".

Set the printer you will use for TaxWise as the Windows default printer on all computers on your network.

IF YOU JUST WANT TO USE A NETWORK TO SHARE A PRINTER THEN STOP HERE.
Install TaxWise as a stand-alone program on each computer if it is not already installed. Set the printer in TaxWise Setup Options to be the network printer.

PART 3 - SETTING UP TAXWISE ON THE NETWORK

Decide which computer will be the TaxWise Server. Generally this will be the most powerful computer, however local circumstances may dictate otherwise. The more computers linked in the network then the more power is required from the TaxWise server. Any computer can be used as the server should have at least 512 MB of ram, a processor speed of 1.0 GHz or more, and a fast hard drive. HP nx6310 or HP nx6320 laptops are great – they have 1GB Memory and a fast hard drive. AARP nx61100 laptops are adequate. Some IRS Depot computers are adequate. Using a low powered server computer will not prevent networking, but overall network performance will be slow.

1. Share the TaxWise Server Disk Drive(s):

a) If the server computer is a Depot Laptop not using TrueCrypt.

In Windows Explorer locate Drive C: and right click on it.

Select Sharing and Security

You will see a Default Share that has been set by Windows as C\$. This is for

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system purposes, and cannot be deleted.

Click on "New Share"

Enter a Share name of TWSRVR_C (recommended, but it can be any valid share name – just keep it short and meaningful).

Click on "Permissions" and check Allow Full Control for the "Everyone" user group. Click Apply and then OK twice to close the "Share" Window and return to Windows Explorer.

b) If the server computer is using TrueCrypt for encryption:

Be sure that TrueCrypt is installed and operational with whatever procedure you have elected to use (Internal, External, or Traveler). If TrueCrypt is set to mount favorites at startup, remove this option as it bypasses setting up the shared drive to the network.

Click the TC Start Icon and specify that this will be a server computer. (Answer "Y" to the server question). The shared drive should have a hand under the drive icon or before the listing if Detail view is used. You may have to Refresh the Windows Explorer view to get the hand to appear.

2. Map a Client (workstation) to the Server Drive.

On any one of the other computers right click on My Computer, and then click on Map Network Drive. A drive letter will be suggested by Windows – J is the letter that we recommend that you use, though any letter that is unused in your environment will work. Do not use P, Q, R, or S to avoid confusion and conflict with locally installed TrueCrypt volumes. Don't enter anything in Folder. Check Reconnect at Logon, and then click on Browse. In the "Browse for a folder" window click on the + signs to expand the entries. You will see VOLGROUP and the names of the computers connected.

(If you don't see any other computers, double-click on My Computer and make sure there are no leftover mapped drives from last year; if so right click on them and then choose Disconnect.) Click on the + sign alongside the name of the server computer. You will see the Server shared drive(s) TWSRVR x (where x will be either C, P, R, or S). Click the + sign by TWSRVR x Click on TWSRVR x and it will highlight blue. Click OK. Then click Finish. A connection to TWSRVR x will be created. A drive letter on the workstation is now "mapped" to the Server drive. Close the window.

If you are using both drives P and S on the Server (two TrueCrypt volumes) then repeat the above steps for the other drive, mapping P to J and S to K, where J and K are recommendations, not mandates.

Repeat the above for all the connected computers – except the server.

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3. Configure TaxWise on the Server.

(Note – if installing from a clone CD the procedure here might differ – however if a workstation number is not already assigned TaxWise will ask for one)

If TaxWise is not installed on the Server then install it now, just as usual from a TaxWise CD - **except** – when TaxWise asks “Is this a Network Installation” click **Yes**. TaxWise will require a Workstation Number. **Enter 101** and click next. Installation will complete, but don't run TaxWise yet – **restart the computer**.

When the computer has restarted start TaxWise. Go through the Setup process as usual except check the box “Save as Workstation Defaults”. Also, on the General Tab check “Network – My computer is a single or multi-user machine ATTACHED to others”. On the Printer Setup Tab select the Network Printer. Register TaxWise with your EFIN and Registration Code. TaxWise on the Server can be closed, or left running.

If TaxWise is already installed on the Server start TaxWise and log on as the **Admin** user. Go to Tools then Utilities/Setup Options and run through the Setup screens. On the General Tab check “Network” and also check the box “Save as workstation defaults”. On the Printer Tab choose the network printer in all three boxes. If it is a local printer you will just see the printer name. If a printer connected to another computer you will see the printer name prefixed with the name of the computer it is attached to. Go to the last page and click the “Finish” button. Close TaxWise. Restart TrueCrypt on the server computer, answering “**Y**” to the server question.

Create the required Workstation number for TaxWise. Right click on My Computer, and click on Properties. Click on the Advanced Tab and then on Environment Variables. In the lower of the two Windows scroll down and see if there is an entry for Workstation. **If there is** then make sure it is 101. **If there is no workstation entry** click on “New” just below the lower window. For “Variable name” enter Workstation, and for “Variable value” enter 101. Click **OK three times**, then **restart the computer**.

4. Set up and Configure TaxWise on the “Client” computers. (These should be started after the server computer is up and running and TrueCrypt is started as a server.)

- a) If TaxWise is already installed on any of the “Client” computers CCH recommends that it be uninstalled. Or at least remove its icon from the desktop. It is possible to have TaxWise installed and run “stand-alone” on each of the client computers when that computer is not connected to a network. However when running on a network it is possible that a volunteer might start the “wrong version”. It must be a local decision as to whether to leave TaxWise installed on a network client computer.
- b) On any of the other computers double click on My Computer. You will see the Network Drive (for example TWSRVR_P (J:)). (If you see the network

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connection as disconnected, then the server computer is either not running or has not started TrueCrypt as a server.) Double click on it. Move to the UTSyy Folder and double click. Move to the TWTECH folder and double click. Locate the SETUP.EXE program and double click on it. TaxWise workstation setup will start. You will be asked for a **Workstation Number** – **Enter 102** for the first non-server computer; increment this number by one (1) for each successive computer installed on the same network (103,104, etc.).

- c) For **Windows Vista workstations** it is recommended that you use the TaxWise CD to install TaxWise on the workstation, rather than the setup.exe program in the TWTech Folder on the server.
- d) If you want to network **TaxWise 2007 or 2008 on a workstation that has Internet Explorer 7.0**, you must set a 'Local intranet' permission to avoid a system error that will prevent accessing TaxWise from the client workstation.
1. Open Internet Explorer on the workstation and select **Tools > Internet Options.**
 2. Click on the **Security** tab.
 3. Click on **Local intranet**, then click the Sites button.
 4. UNCHECK the **Automatically detect intranet network** box.
 5. Click the **Advanced** button.
 6. Type **J:** (substitute **J** for the drive letter TaxWise is on) and click **Add**
 7. If you get an error at this point, instead of **J:** use two slashes followed by the computer name of the SERVER
(e.g. \\servercomputername)
 8. Click **Close** and **OK.**
 9. Try to open TaxWise again.

When the setup process is finished restart the computer. Once restarted there will be a desktop icon for TaxWise – TaxWise on Drive J: (or whatever drive letter you chose). Double click on it and TaxWise will start.

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APPENDIX A - Equipment

Network Switch and/or Wireless Router:

8-Port Switch – Fast Ethernet (100Mbps).
Wireless Routers are generally 4-Port.

Many sources, prices vary every day! Check:

http://www.pricegrabber.com/search_attrib.php/page_id=17

Local sales (Office Depot, OfficeMax) can sometime get good prices.

You should not need to pay much more than \$25

TrendNet and Zonet tend to be the lower cost makes. LinkSys and DLink are typically more expensive.

Refurbished items can often be bought with savings. Check out

http://www.tigerdirect.com/applications/Refurb/refurb_tlc.asp

Belkin has good wireless routers generally with a lifetime warranty.

Network adapters:

PCMCIA network adapters are readily available for laptops that do not have built-in Ethernet ports. Buy the ones that have an RJ45 connector, not one that has a “dongle”.

Shop around – Same sources as for network switches.

Network Cables:

Category 5 Ethernet. Not usually worth making your own. Mail Order is usually lowest cost. Places like Office Depot etc. are generally expensive. One good source is: <http://store.pchcables.com/>

In the Midwest, Computer Network Accessories in Ohio, is a good source for both cables and network switches. <http://www.cnaweb.com>

Prices are very competitive, and shipment costs are reasonable.

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APPENDIX B - Troubleshooting

If the network appears not to work be patient for a while. Even with all the settings correct it can take a while for Windows to “configure” the network. If you make a change to any settings there may be a delay in seeing them take effect. Modern computers are fast, but not instantaneous!!!

Here are some additional tips to use when initially setting up a network:

1. Set up each client workstation individually by connecting it to the server using a ‘crossover’ Ethernet cable before establishing the entire network. This is a simpler environment to work in with no switch or router.
2. Configure AVG as recommended in Appendix C, but turn it completely off (select “Firewall disabled” on the Firewall Component user interface screen) for initial mapping and workstation setup on both the server and clients.
3. When mapping the client to the server, and ‘Browsing’ to find the server, often it will not show anything beyond ‘Volgroup’ in the “Browse for folder” dialog of the Map Network Drive wizard. In this case type [\\Servername\Sharename](#) ([\\T2000xxx\twsrvr_p](#)) into the Folder box. Then click finish and it usually will connect to the server.
4. After installing the workstation and insuring that TaxWise opens properly on all of the clients, turn the AVG Firewall back on using the “Computer in Domain” profile on the server and the clients.

If – after re-checking all the setting in the instructions – you still cannot get networking to run and you are tearing your hair out then:

Windows Services.

It is possible that one of more of the Windows Services that are required for successful networking is disabled.

To check the services click on **Start**, then **Run**. Enter “SERVICES.MSC”, and then click OK.

Verify that the following services ARE running:

- Computer Browser (only on the server; DISABLE on the clients)
- DHCP Client
- Server
- TCP/IP NetBIOS Helper
- Workstation

With a default installation of Windows XP Pro or Home all the above should have a startup type of Automatic and therefore should be running. If they aren’t then change the settings.

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Don't change other services that look as though they might be involved!!!

Other problems

Even if you get a "green light" on every computer it is possible that a cable could be bad. Try a different cable.

Things that make you feel dumb.

- The network switch isn't plugged in to its power adapter
- A Windows Firewall is running
- You are using a crossover cable where a regular one is required.
- You have not configured the AVG Firewall on the client according to Appendix C
- You have not removed old mapped network drive connections

As a last resort

Send e-mail to TaxAideTech@aarp.org. Include your name, your address, your state, your position (e.g. LC, TC, TCS, etc.), and your telephone number.

Explain the problem in as much detail as you can – at least the make/model of the computers, and the operating system you are using. Be as specific as possible. Someone will contact you and try to help.

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APPENDIX C – AVG Firewall Use and Configuration

[This entire Appendix has been revised relative to the 1/31/08 baseline]

It is important that the AVG Firewall be configured correctly to support networking at a Tax-Aide site. The following pages show how to configure the Firewall component of AVG Internet Security version 8.0 for an AARP purchased or donated computer participating in local networking for printer sharing or for TaxWise client/server networking.

This Appendix does not cover AVG 8.0 installation or configuration of its Antivirus component. Those instructions are contained in a separate document posted on the AARP Tax-Aide ExtraNet Technology page, <http://www.aarp.org/sk/taxaide/technology.html>, captioned "AVG Internet Security 8.0 Installation, Configuration and Use (11/08)." When using that document to install AVG 8.0 on computers that will participate in local networking, substitute the Firewall configuration instructions contained in this Appendix for those contained in the other document.

The AVG Firewall is ordinarily capable of tracking the type of network being used and changing its characteristics accordingly. This is called Area Detection and Automatic Profile Switch.

However in some of the private LANs typically used for Tax-Aide sites AVG can't determine the type of network. There may be no specific network controller.

What follows describes how best to configure the AVG firewall for typical Tax-Aide use where networking IS a requirement. We will disable Area Detection and Automatic Profile Switch, configuring the firewall manually instead.

AVG 8.0 has four built-in Firewall profiles. Additional profiles can be added, but this is not needed, and is beyond the scope of this document. The four provided are:

1. **Standalone Computer.** This would be a computer that is connected to the Internet via dial-up or direct connection to a Cable or DSL modem without a router being in place. File and Printer sharing is NOT permitted with this profile.
2. **Computer on the Move.** A computer that is "mobile" and can connect to any available network. This is typical for laptops that are moving around and connecting to wireless "hot spots" or other unsecured networks. File and Printer sharing is not permitted with this profile AND NEVER SHOULD BE!!
3. **Computer In Domain.** This is generally a computer on a controlled and managed network, as in a school or larger business. Such a network is completely protected from the outside world. It also could apply to a Tax-Aide private network where there is NO connection to the Internet. File and Printer sharing is permitted with this profile.
4. **Small Home or Office Network.** (New in AVG 8.0) This is generally a computer on a network that is not actively managed. It could potentially be used for the server on a Tax-Aide network that has two network adapters, one for a Tax-Aide private network and another for a connection to the

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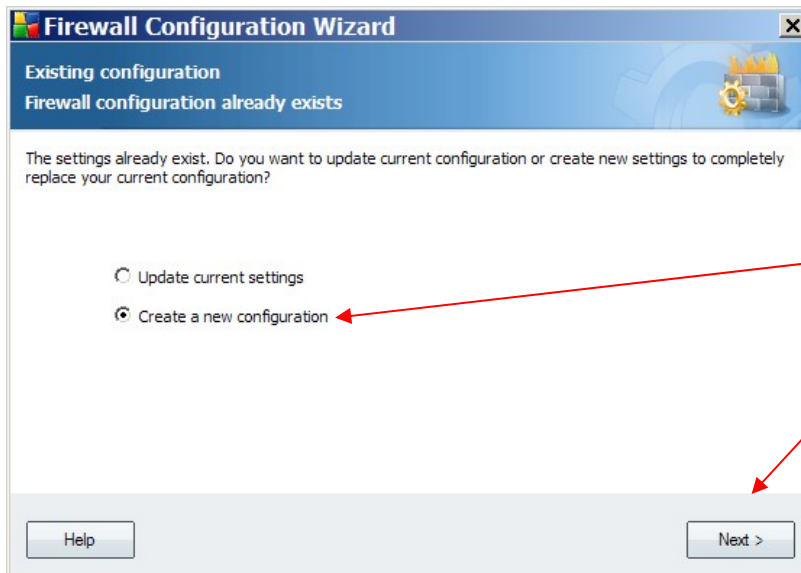
Internet. In this Firewall profile, networks could potentially be defined as “safe,” and network adapters could be defined as “safe” or “unsafe.” File and Printer sharing is permitted on “safe” networks or adapters, but is blocked on “unsafe” ones. **However, we have found that this profile no longer reliably permits TaxWise client/server networking, even on adapters marked as “safe.”** Consequently, we have abandoned the use of this profile for TaxWise networking. While this profile worked for us in AVG 8.0.199, subsequent updates to the program have made it stop working for this use.

The following steps will set up the AVG Firewall configuration from scratch. This is best done when the computer is not connected to a network of any kind. The network adapters need to be enabled on the Windows Network Connections screen, but any actual network connections need to be prevented by unplugging an Ethernet cable or turning off a wireless adapter’s radio.

If you have already installed AVG but want to reconfigure the Firewall, launch AVG; then on the Overview page, double click on the **Firewall** component; then click **Configuration wizard**.

If you are following these instructions during a new installation of the AVG program you will not see this window, it will just go immediately to the next window.

Run the Firewall Configuration Wizard:



Make sure “**Create a new configuration**” is checked and click **Next**

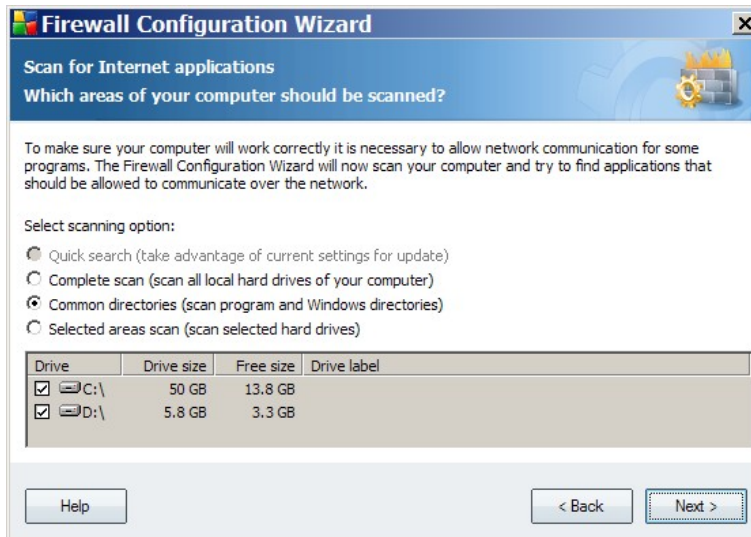
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As a computer can be used with a variety of different connections to the Internet make sure that all four options are checked. Click **Next**.

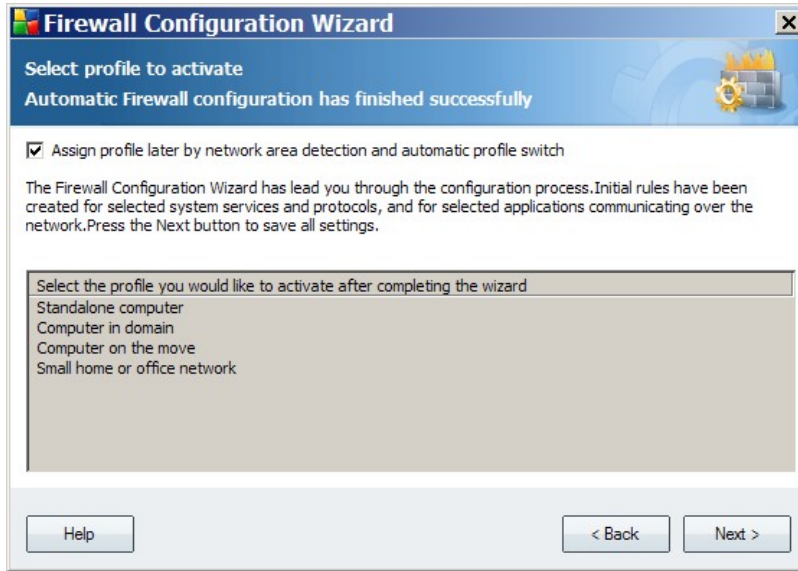


Let the wizard do a scan of common directories to "find" known applications which will want to connect to the Internet. This is a fully automatic process. Click **Next** and let the scan complete.

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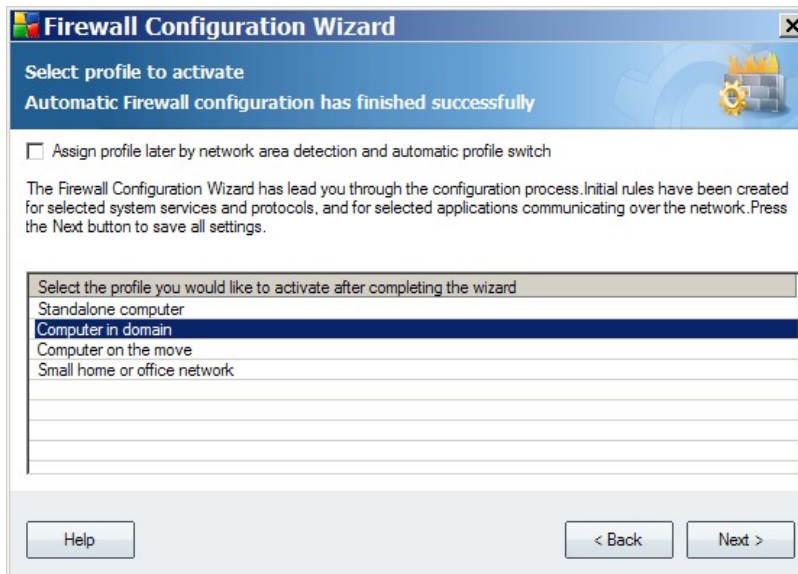
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This display allows for the selection of the AVG firewall profile that will be used when the wizard exits.

It also controls whether Area Detection and Automatic Profile Switch are turned on.

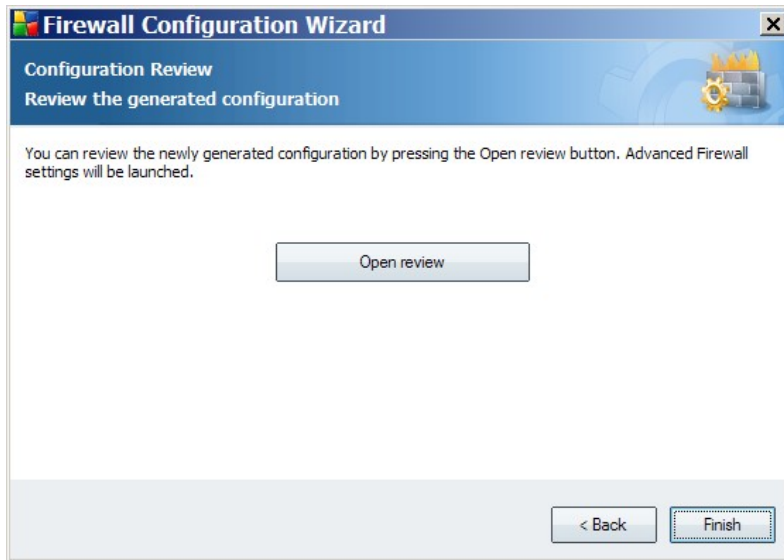


Turn off area detection by unchecking the box and then select **Computer in domain**. Then click **Next**.

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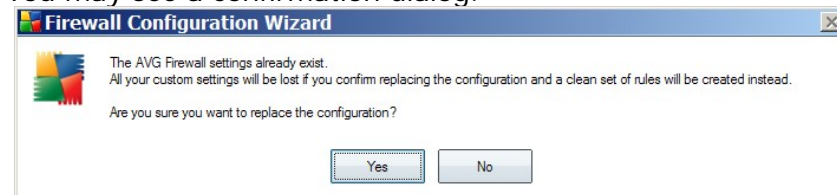
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On the Configuration Review screen, click **Finish**.

You may see a confirmation dialog.



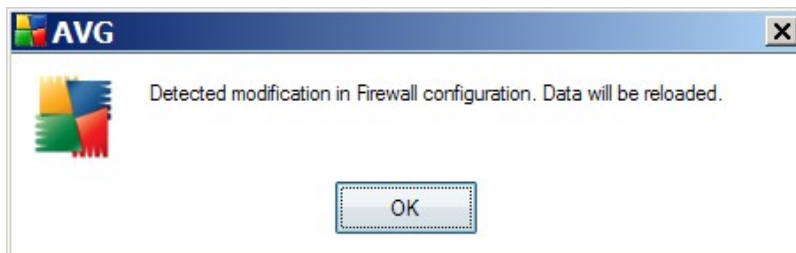
Click **Yes**.

Click **Finish** on the Congratulations dialog box that may be displayed.

If you are following these instructions during an AVG program install, you may not see the following windows. Instead, you may be prompted for a computer Restart; if so, click **Yes**.

After the Restart, open the AVG User Interface and go to the instructions below for "**Checking and Configuring the Firewall settings**."

You may see this dialog:



If so, Click **OK**.

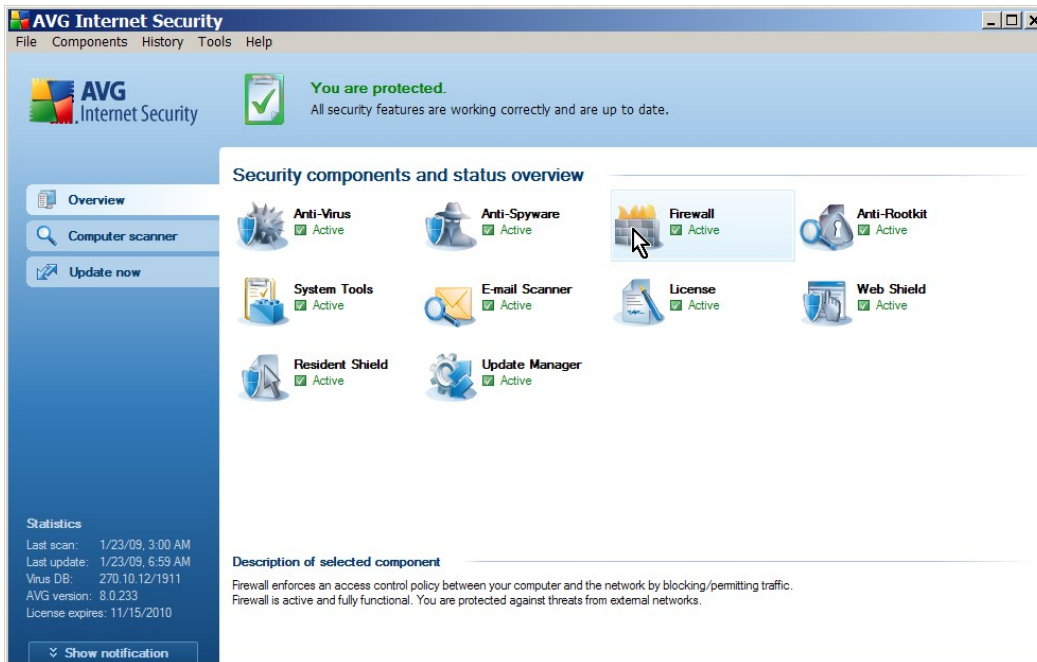
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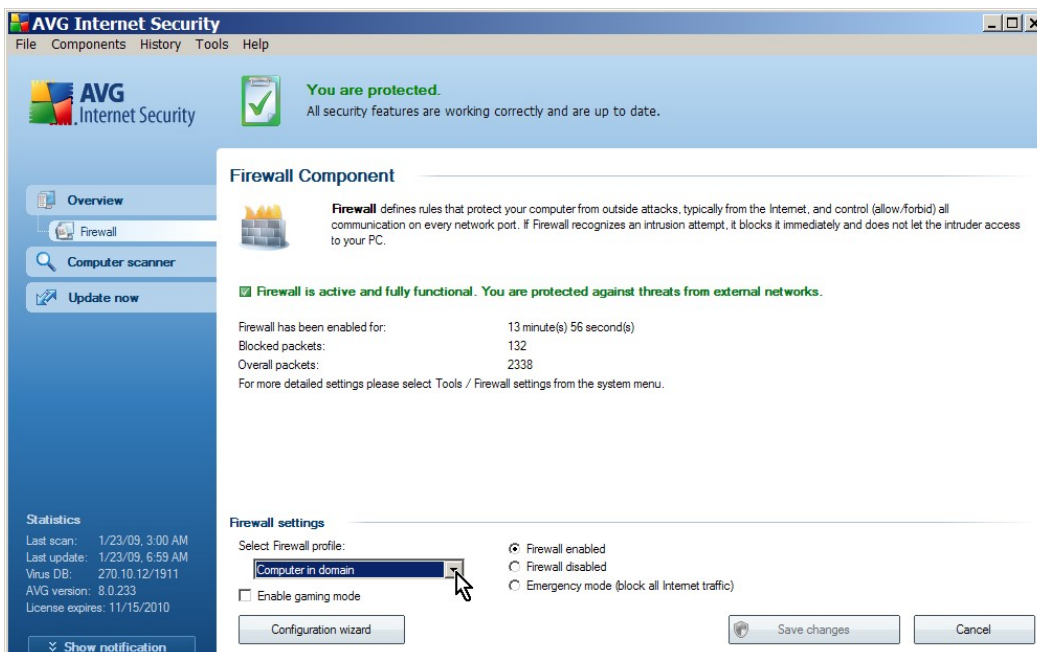
(modified to allow for TrueCrypt Volumes and AVG 8.0 Firewall)

Checking and Configuring the Firewall settings:

You can now review your work by opening the Firewall component from the AVG user interface screen:



Note that the selected profile is **Computer in domain**.



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The configuration of the AVG 8.0 Firewall component for local TaxWise networking is now complete.

If you are installing AVG 8.0 for the first time, connect one of the network adapters on the computer to the Internet and return to the separate document, "AVG INTERNET SECURITY 8.0: Installation, Configuration and Use" at the heading "**Continue here if you are returning from configuring the Firewall for network use.**"

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APPENDIX D – Frequently Asked Questions

[This entire Appendix has been revised relative to the 1/31/08 baseline]

Frequent Networking Issues and Recommended Solutions

Issue 1: I cannot get the IRS computer to work as a server.

Recommended Solutions: Do not use the IRS computers as servers. They work better as clients, but have additional layers of security that makes it very difficult to setup as a server. Primary issue seems to be Windows user accounts that are setup on the IRS laptops. "Changing" the accounts to mirror the server does not work since attributes are retained. A NEW account should be created that mirrors the server and all will be well.

Issue 2: I set up server share according to Tax-Aide Networking Instructions and it does not work.

Recommended Solutions: Review each step and be sure you followed ALL steps.

Issue 3: I used these same computers to network last year and this year it does not work.

Recommended Solutions: Be sure to disconnect ALL mapped network drives and remove ALL shares from previous years and setup new network settings for the current year. Everything changes and there are no shortcuts to networking.

Issue 4: Windows User Account problems prevent connections to my server.

Recommended Solutions: On AARP computers, there should be a standard Windows login username called "volunteer" and a standard password for the current Tax Year. User Accounts should not be changed, but created from scratch (not copied and changed). This is because attributes remain with a copied or changed account. A "volunteer" account can be added to other laptops as well...be sure you are logged-in as an Administrator to add a user account

Issue 5: My workstations can see the TWSRVR_P share, but I cannot get into the UTS07 directory to do the setup. I get an access violation.

Recommended Solutions: The logged on Windows Accounts **must** match exactly on both the server and the workstation. This means that both systems must have exactly the same accounts and the accounts must have exactly the same passwords. If there are missing ones, please add them when logged on as Admin. Then it does not matter which one you are logged on as; the access will be available.

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If you do not have the User account created on the server that "exactly" matches the one on the workstation client, you sometimes cannot even expand the Txxxxxxx in the VOLGROUP to see the server shares. Once the logged on Users match "exactly" then everything works.

Issue 6: I have Different Windows UserIDs and Passwords between Clients and Servers.

Recommended Solution: Use an identical Windows user account with the same userid and password on the server and all clients.

Alternative Solution: (From Pat Heid 2/02/2008)

I have found that you can network computers which are set up with different users and different passwords. I have successfully networked the AARP laptops and IRS laptops without adding users and passwords. I just got back from helping Harlingen set up a network with an IRS laptop as the server with three library-furnished computers with no passwords at all. When mapping the network, the client computer will probably find the server computer but since the server is password-protected differently from the client, access will not be granted.

At that point:

1. Right click on the server computer name and select "EXPLORE" from the menu furnished.
2. A box will appear allowing you to type in the user and password for the server. Be SURE to check the box "remember my password" so you don't have to do this in the future.
3. It will open the shared drive on the server showing the shared drive (twsvr_x-the drive that is shared) with all the folders on that drive.
4. Click the drive to highlight (shows blue).
5. Then close the windows until you are back to "browse" for the server. This time when you browse the server will show the shared drive and you can click on it.
6. Click "finish". Your network is established and the drive will open so you can open the TW08 folder, TWTech folder, and run "setup.exe" to set up the workstation on the client.

Issue 7: When mapping the network drive on a client, and clicking the server name, it does not open the contents of the server.

Recommended Solutions: Just wait a while, as this can take a minute or two. If it still will not open, try enabling the 'Use simple file sharing' on the 'View' tab of 'Folder Options' in the Control Panel of the server. Then after the mapping is completed the "Simple file sharing" can be disabled.

Issue 8: When trying to connect to a TaxWise server, I get a "Storage Too Low" warning message.

Not enough server storage is available to process this command.

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-and-

Not enough memory to complete transaction. Close some applications and retry.

Clients cannot access network shares.

Recommended Solutions: Look at

<http://support.microsoft.com/default.aspx?scid=kb;en-us;177078>

BUT the decimal value that I had to use was 50. I tried 15 and 30 with no success. 50 Works!

RESOLUTION

Warning Serious problems might occur if you modify the registry incorrectly by using Registry Editor or by using another method. These problems might require that you reinstall your operating system. Microsoft cannot guarantee that these problems can be solved. Modify the registry at your own risk. To resolve this behavior, increase the **IRPStackSize** value in the registry:

The NTC has created a program to make this change. It avoids having to make the change yourself in the registry. This program is called "Set IRP Value.txt" and is available on the AARP Extranet. To run the program change the file extension from ".txt" to ".vbs".

Issue 9: When my server is set up and shared for networking and I try to map the network drive from the client to the server's shared folder or launch TaxWise from the server, I get an error message like "Access Violation" or "Access Denied" or "System Error."

Recommended Solutions:

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Workstations get "System error" followed by access violations when trying to access a network installation of TaxWise

Question

My workstations get a "System error" followed by access violations when trying to access a network installation of TaxWise.

Answer

1. Open Internet Explorer and select **Tools > Internet Options**.
2. Click on the **Security** tab.
3. Click on **Local intranet**, then click the **Sites** button.
4. Click the **Advanced** button.
5. Type **Z:** (substitute Z with the drive letter TaxWise is on) and click **Add**
6. If you get an error at this point, instead of Z: use two slashes followed by the computer name of the SERVER (e.g. \\servercomputername)
7. Click **Close** and **OK**.
8. Try to open TaxWise again.

After step 3, UNCHECK the **Automatically detect intranet network** box.

If you still get the same error, please call TaxWise Technical Support.

This should only be an issue with Internet Explorer 7.

Issue 10: After TaxWise is installed on a client computer, an attempt to open TaxWise results in an error "Database error" or "Database cannot be read."

Recommended Solutions: On each workstation that gets the error message:

1. Open UTS07 or UTS08 and run dbrepair.exe. This fixes part of the problem.
2. Go to Control Panel, Region & Language options/customize. Make sure the short date format is MM?DD?YYYY (it wasn't on 2 of my computers).
3. Still in Control Panel, open Internet Options/security/local Intranet/sites/advanced. Add "//server" to zone (see previous Issue for how to do it).

Issue 11: When I 'Open existing returns' in TaxWise 2006 the list is empty.

Recommended Solutions: (TaxWise Knowledge Base Answer ID: 2932)

1. Open the Control Panel
2. Double-click **Administrative Tools**
3. Double-click **Microsoft .Net Framework 1.1 Wizards**

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4. Choose **Trust an Assembly**
5. Make sure the option "Make changes to this computer" is selected
6. Click **Next**
7. Click on the **Browse** button
8. Go to your **UTS06** directory
9. Locate **UniversalTaxSystems.TaxWise.Interop.dll** and highlight
10. Click **Open**
11. Click **Next**
12. Move the slider bar to **Full Trust**
13. Click **Next**
14. Click **Finish**
15. Repeat steps 4-14, selecting **UniversalTaxSystems.Diagnostics.Tax.dll** in step 9
16. Using Windows Explorer, check the UTS06\USERS\[username] directories for any file containing 0 KB and delete them.

If this does not correct the problem, contact technical support.

Issue 12: Some client workstations will not open TaxWise. Mapping and workstation setup ran fine, but there were three errors listed when clicking on the TaxWise desktop icon on the Vista Home Basic client. Error message said TaxWise is closing due to--- two database related errors and "1.1 is not valid floating point value..."). The next two clients, both AARP HP notebooks, had the same problem when trying to open TaxWise. But the error message only listed the "floating point value" problem.

Recommended Solutions: Tech at CCH found an old knowledge base article that said corrupted 'Tax Form Defaults' files typically cause 'floating point value' errors. I was directed to remove two files from TaxWise on the server. (The 'Tax Form Defaults' file (8000000.000) from the 'UTS08\USERS\ADMIN' folder in TaxWise and the 'homepage.htm' file in the 'UTS08\TWHomepage' folder.) Then I individually connected each of the three clients that had the problem and when the TaxWise icon was clicked it opened the TaxWise program on the server. I may have rerun the workstation setup on one of the clients, but I know it was not needed on all three. After the clients properly worked I copied the same 'Tax Form Default file' back into TaxWise and everything still worked. There were absolutely no set-up changes made on either the server or the clients to resolve the problem, other than removing the two files, and no changes were made to the Tax Form Defaults file before placing it back into the UTS08\USERS\ADMIN\ folder.