

# Printer Installations for TaxWise TY 2011

## September 14, 2011

### Summary:

This document describes how to set up a network using two or more computers, a router and a printer. The network may consist of wired, wireless, or a combination of both wired and wireless type connections to the router. The printers are set up as shared or network.

Printers can be directly connected to a computer, and shared on the network with other computers, via USB or parallel cable using the manufacturer driver that can be downloaded from the manufacturer website -OR- a printer with a network interface card (NIC) or wireless NIC can be setup on the network and configured and used by all that access that network.

This document will explain the use of both printing methods that will be applicable to the printing setup when using TaxWise desktop or TaxWise Online.

### **Chapter I: Printer Sharing (Wired)**

### **Chapter II: Printer Sharing (Wireless)**

### **Chapter III: Network Printer Configuration and Setup**

#### **Caution:**

**FULL WIRELESS NETWORKING of TAXWISE DESKTOP IS NOT PERMITTED or SUPPORTED BY THE IRS, CCH, or AARP TAX-AIDE.**

**WIRELESS NETWORKING TO SHARE A PRINTER IS ALLOWED. However SUPPORT is NOT AVAILABLE from CCH or the IRS.**

See "*Networking TaxWise for AARP Tax-Aide*" to see instructions for networking computers for TaxWise or "*Networking Checklist and Troubleshooter*," for network troubleshooting techniques. Both documents are available on the Extranet under the Technology Hardware tab, Networking group.

### **Chapter I: Printer Sharing (Wired)**

#### **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 (preferred) or network switch with standard Ethernet cables. Make sure the power supply for the network router or 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

## **Printer Installations for TaxWise TY 2011**

### **September 14, 2011**

always connected.

Most modern network routers and switches will show a single light or a pair of lights for each successful 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 and instructions can be found in the next section under "Setup Network ready Printer". For less "network savvy" users 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.

### **3. Decide which computer will be the Print Server**

The computer with the printer directly connected to it, and shared by other computers on the network, using either a parallel printer cable or a USB printer cable will be the Print Server. It can be the same computer as the TaxWise server or a different computer.

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 no longer function properly and cannot be corrected without restarting Windows, then 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.

**Printer Installations for TaxWise TY 2011**  
**September 14, 2011**

**4. To Name a Printer**

<b>To Name a Printer</b>	
<b>Windows XP</b>	<b>Windows Vista / Win 7</b>
<ol style="list-style-type: none"> <li>1) Click on <u>Start</u>, -&gt; <u>Settings</u> -&gt; <u>Printers and Faxes</u>;</li> <li>2) <u>Highlight the printer</u> and <u>right click</u> on the name.</li> <li>3) Click on <u>Rename</u> and type the new name.</li> <li>4) <u>Press the tab or enter key</u> to finish the name change.</li> </ol>	<ol style="list-style-type: none"> <li>1) Click on <u>Start</u> -&gt; <u>Device and Printers</u></li> <li>2) Highlight <u>the printer</u></li> <li>3) <u>Right click</u> on the name</li> <li>4) Click on "<u>Printer Properties</u>"</li> <li>5) Type the new name into the top line under General Tab.</li> <li>6) <u>Press the enter key</u> to finish the name change.</li> </ol>

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*).

**5. Share the printer on the network**

<b>Share the printer to the network</b>	
<b>Windows XP</b>	<b>Windows Vista / Win 7</b>
<ol style="list-style-type: none"> <li>1) Right click on the printer name you want to share</li> <li>2) Select "Sharing"</li> <li>3) In the window that opens check "Share this printer"</li> <li>4) The printer name will show automatically to whatever it was named in step 2</li> <li>5) To set as the Windows default printer, right click printer name</li> <li>6) Select "Set as Default Printer"</li> <li>7) Close Printers and Faxes</li> </ol>	<ol style="list-style-type: none"> <li>1) Right Click on the printer name you want to share</li> <li>2) Select "Printer Properties"</li> <li>3) Select the Sharing Tab</li> <li>4) Click the "Change Sharing Options" button</li> <li>5) Then put a check in the box by "Share this printer" and printer name will show automatically to whatever it was named in step 2</li> <li>6) Click Apply and OK</li> <li>7) To set as the Windows default printer, right click printer name</li> <li>8) Select "Set as Default Printer"</li> <li>9) Close Device and Printers</li> </ol>

## Printer Installations for TaxWise TY 2011

September 14, 2011

### 6. Set up all the other computers on the network to access the shared printer.

*Before setting up the printer on all other computers, check to make sure that the Firewall status is ON for each computer.*

Set all other computers on the network to access the shared printer	
Windows XP	Windows Vista / Win 7
<ol style="list-style-type: none"><li>1) Click Start -&gt; Settings -&gt; then "Printers and Faxes"</li><li>2) Click on "Printers and Faxes"</li><li>3) Double click on "Add Printer." The Add Printer Wizard will start (it's OK to use this Wizard)</li><li>4) Click Next</li><li>5) Select "A network printer, or a printer attached to another computer"</li><li>6) Click Next. "Browse for a printer" will be selected.</li><li>7) Click Next</li><li>8) 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</li><li>9) If you cannot see the printer, double check the Firewall setting. Once you see the name of the printer highlight it and click next</li></ol>	<ol style="list-style-type: none"><li>1) Click Start -&gt; "Devices and Printers"</li><li>2) Click on "Add a printer"</li><li>3) Click on "Add a Network, wireless or Bluetooth Printer"</li><li>4) Select the correct printer if it shows on the list;</li><li>5) if it does not, the click "The Printer that I wanted isn't listed"</li><li>6) Click Next</li><li>7) Click the button "Select a shared printer by name" and enter the \\computername\printername then click next</li></ol>

*If you cannot find the printer on the network try shutting down and restarting the computers. Always start the server first. If this doesn't work, refer to the document, "Networking Checklist and Troubleshooter," on the Extranet – Technology Hardware tab, Networking group.*

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

# Printer Installations for TaxWise TY 2011

## September 14, 2011

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.

## Chapter II: Printer Sharing (Wireless)

### Tax-Aide Wireless Printing Policy

The use of Wireless Networking is not permitted at any site for full client/server networking of TaxWise.

Wireless networking, for the purpose of printer sharing and TaxWise Online (TWO) (with restrictions), is permitted.

### Wireless Printing Security Policy

A router will be used for wireless printer sharing and all the following steps are recommended to configure and secure a wireless router when used with an AARP Tax-Aide network for printer sharing:

1. **Network Configuration:** The default **Infrastructure**<sup>1</sup> network configuration will be used and should not be changed. Ad-Hoc<sup>2</sup> networks (setting the router to an Access Point) are not permitted.
2. **Password Protection:** The wireless router or access point will be protected by changing the default username (if username is required) and password.
3. **SSID:** The manufacturer’s default SSID<sup>3</sup> must be changed to "**TAV[site name]**" (without quotes), e.g., TAVMainLibrary, TAVMapleCC, etc.
4. **SSID Security Key:** The recommended SSID Security Key (Passphrase) will be composed of [**Current depot laptop password**][**Last 8 digits of the WAN/LAN MAC address**]. Example if the depot password is “Tiger1” and the MAC address is C0-56-34-E6-24-15, then the Passphrase would be, Tiger134E62415.
  - a. You may be given an option of Hex or Passphrase for the Security Key – choose Passphrase

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<sup>1</sup> Infrastructure----- A wireless network centered about an access point. In this environment, the access point not only provides communication with a wired network but also mediates wireless network traffic in the immediate neighborhood.

<sup>2</sup> Ad-Hoc ----- Computers communicate directly with one another without using an access point (AP) or any connection to a wired network.

<sup>2</sup> SSID -----The SSID is a sequence of up to 32 letters or numbers that is the ID, or name, of a wireless local area network. An open network broadcasts the SSID so people wanting to connect can see it in a network list. A closed network hides the SSID so the user must know the SSID before they can connect. The SSID is established by the person setting up the router.

## Printer Installations for TaxWise TY 2011

September 14, 2011

- b. Caution: The Passphrase is case sensitive, so be sure you record it correctly for future use
5. **Encryption: WPA/WPA-2<sup>4</sup>** encryption will be used.
6. **OPTIONAL: MAC<sup>5</sup> address filtering<sup>6</sup>** can be used and adds extra security when used in conjunction with WPA/WPA-2. This setting is configured by turning MAC address filtering on and then entering the MAC address of all equipment in your network. The MAC address is built into the hardware of all networking equipment.
7. **Signal Boosters:** High power antennae and/or other signal boosters will not be used.
8. File sharing will be turned off

*See the following pages for policy implementation procedures*

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<sup>4</sup> WPA/WPA-2 ----- Short for Wi-Fi Protected Access and it provides strong encryption for Wi-Fi networks.

<sup>5</sup> MAC----- Media Access Control address, a hardware address that uniquely identifies each node of a network.

<sup>6</sup> Address Filtering---- Address filtering is a router configuration option that only allows connection to the router from equipment whose MAC address is identified in the router tables.

## Printer Installations for TaxWise TY 2011 September 14, 2011

*Due to the large number of different makes and models of wireless equipment it is not possible to address all possible settings and methods.*

*It is the responsibility of the TCS and or TC to ensure that policy requirements are met.*

**This guide is written around the Belkin Model F5D7230-4 Wireless G Router. For other makes and models read the manual. Quick Start Guides are not usually appropriate as they deal primarily with sharing an Internet connection using a cable modem or DSL line.**

1. If the computer you will connect directly to the Router with an Ethernet cable has built-in wireless capability then turn off the wireless feature (push button on the HP NX6110 and most other AARP purchased laptops). Wireless can also be disabled in network settings. Right click on the wireless connection and select disable.
2. Do not connect the computer to the Router yet.
3. Install the Router software using the manufacturer's CD. Accept all the defaults.
4. Connect the Router to the computer with an Ethernet patch cable. Do not use the WAN port on the router. The WAN port is usually clearly identified, and we don't use it.
5. Using your web browser access the Router by going to the "site" 192.168.2.1 (some routers may use a different address – see Router documentation for default address).



6. Click on Utilities – System Settings. The current password for the Router access is blank.
7. Enter a new password, and confirm it. No other changes are necessary on this screen. Scroll to the bottom of the screen and click “Apply” – the Router will reboot once you click on OK.
8. Login in to the Router using the password just assigned,

## **Printer Installations for TaxWise TY 2011**

**September 14, 2011**



9. Click on “Wireless – Channel and SSID”
  - a. Change the SSID from its default to **TAV**.
  - b. Click “Apply changes” and reboot the Router again.
  
10. Login to the Router again
  - a. Click on “Wireless – security”.
  - b. Scroll to select a security mode of WPA.
  - c. Enter either the WPA key.
  - d. Write down the WPA key – you will need it. If you forget it just log on to the router and look it up.
  - e. Click apply changes.
  
11. OPTIONAL - Log in to the Router again and access “Firewall – MAC address filtering”.
  - a. Check the “Enable MAC address filtering” box.
  - b. Enter the MAC address of each of the devices that will be allowed to connect to the wireless network.  
The list of allowed MAC addresses can be updated later.
  - c. Click Apply changes.

**Your Wireless Router should now be configured for secure access!**

### **ACCESSING THE WIRELESS ROUTER FROM ANOTHER COMPUTER:**

If the computer does not have built in Wireless capability install a wireless card according to the manufacturer’s instructions.

These guidelines are written around an HP NX6110 Laptop that does have built-in wireless.

1. Make sure that the Wireless LAN on the HP laptop is turned on (switch by power switch – blue light should be on).
2. If using the default Windows Wireless Zero Configuration Service, right click on the wireless icon  
in the right of the task bar. 
3. Select "View Available Wireless Networks".
4. Click on the name of the Wireless Network you want to use (TAV).
5. Click on "Connect"
6. If using the Broadcom Wireless Utility, right click on the  
wireless icon in the right of the task bar. 
7. Click on “Open Utility”
8. Under the Wireless Network tab click “Add”
9. To “Join an existing network (recommended) click “Next”
10. Enter the SSID you assigned to the Router and click “Next”

## **Printer Installations for TaxWise TY 2011**

### **September 14, 2011**

11. The Wireless network should be found. Click “Next”.
12. Enter the WPA Key you set up, confirm it, and click “Next”. *Hint – if you expect to do this a lot then put the WPA key into a text file stored on a secure flash drive. You can then copy and paste the key.*
13. Click “Next”, then – if the connection is successful – click “Finish”.
14. Click “Apply” then OK
15. Your connection is done. Proceed now to setup a wireless connection to a shared printer as you would for wired networking (See networking TaxWise for Tax-Aide document on the Extranet for step by step instruction.
16. Remember that full networking of TaxWise client/server using wireless is not permitted.

### **Chapter III: Network Printer Configuration and Setup**

Printers can be setup directly connected to a network, which allows all of the computers on the network to use them without the printer being connected to and shared with one of the networked computers. For several years AARP Tax-Aide purchased printers that have built-in Print Servers. These printers have an Ethernet port that permits the printer to be directly connected to a network via a router. For printers without built-in Print Servers, an inexpensive separate wired or wireless Network Print Server can be added to allow direct network connection. A Network Print Server is a box that has an Ethernet network port on one side, and/or a wireless radio, and a USB port for a printer on the other side. Recently, AARP Tax-Aide has purchased wireless printers which makes attachment and setup even easier.

Printers directly connected to a network are easy to setup and do not require the use of Windows Printer Sharing, which is potentially less secure. Networked printers also offer more flexibility because they do not require the computer that has the printer connected, to always be powered on and connected to your network.

This document provides instruction for three specific models of AARP Tax-Aide purchased printers with built-in Print Servers, and instructions for setting up other AARP Tax-Aide purchased printers using Network Print Servers.

**NOTE:** When using Network printers with any of the connection methods shown, be sure they are set-up with a static IP address. Routers can reassign IP addresses each time you set-up and without a consistent IP address your computers may be unable to find the printer. In some cases, notably wireless print servers, the print server may create a virtual USB port and does not require a static IP address. Consult your print server user manual for detailed instructions.

### **PRINTERS WITH BUILT-IN PRINT SERVERS**

## **Printer Installations for TaxWise TY 2011**

**September 14, 2011**

### **Brother 5250DN Network setup**

This procedure installs the Brother 5250DN printer as a network printer shared by the computers on the network. For Tax-Aide purposes this network should be a standalone network or isolated from other networks with a router. This procedure does NOT deal with sharing the printer with “Windows Printer Sharing” which has already been documented elsewhere.

1. There needs to be one computer on the network that is used for primary setup and then the other computers have the Printer installation copied to them from the primary setup computer.
2. On the computer being used for setup open the Printers and Faxes folder and delete any Brother 5250 printer icons
3. Connect the brother directly to the network switch or router using an Ethernet cable
4. Insert the Brother 5250DN install CD, select the language, select install printer driver, select network cable users
5. Agree to license
6. Make sure Brother Peer-to-Peer network is selected, click next
7. Select search for printer on the network
8. The printer should be found, if not there is likely a network problem and the printer has not been assigned an address. To check this out
  - a. Power the printer on
  - b. Hit the “GO” button 3 times fast and it will print out the printer settings
  - c. The network information is on Page 3
9. Do next and the printer driver will be installed
10. Go to Windows “Printers and Faxes” page find the Brother printer
  - a. If the printer does not show immediately hit F5 for refresh
  - b. Right click on the Brother printer, select properties and then “print a test page”
  - c. If all goes well the page should print, if not solve the problem before going further.
11. In the Brother printer Flash Player dialog box go back to the main screen and select “Install other drivers or utilities”
12. If you wish to use the Brother software to administer the printer install BRAdmin Professional. The built in web interface is generally sufficient for Tax-Aide use and to get to this
  - a. Open Internet Explorer
  - b. Type the IP address of the printer into the address bar and hit enter
  - c. The Brother printer web status display should come right up
13. For deployment of the Brother printer driver to other PC’s on the network do the following
14. Select Driver deployment wizard from the “Install other drivers or utilities” screen
15. Agree to the license and let the deployment wizard be installed
16. Run the deployment wizard
17. Select the peer to peer printer and the deployment wizard should find the printer
18. Click next and the deployment wizard will ask about drivers. Leave the XP drivers selected and click next
19. Leave the question about interactive Help unchecked click next

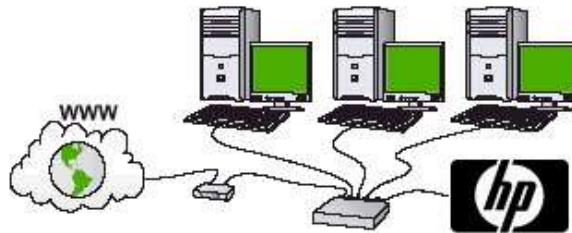
## Printer Installations for TaxWise TY 2011

### September 14, 2011

20. A window listing the driver software will be displayed. IMPORTANT –check the box “only create an Installation Program for other Users”
21. A file save dialog box will appear. Create descriptive file name that can be transferred to other computers that need access to this printer. This file is specific to this printer on this network.
22. Take this file to other computers on the network and run it. The Brother networked printer will be installed and then a test page should be printed.
23. Note that this file is unique to this network setup and brother printer. If the network configuration is changed this file will need to be recreated and run on all of the computers.

### HP1022N Network setup

1. Setup the network.



2. Reset the HP1022N to its initial condition where it is searching for a network address
  - a. From the hard powered off state do the following
    - i. While pressing the Red CANCEL and Green GO button on the printer, turn on the printer. Continue to press the buttons until the printer is in the Ready state (from 5 to 30 seconds).
    - ii. If you have problems during the season doing this hard reset will often fix them
    - iii. To assure the printer has been reset, when the printer is in the ready state, press and hold the Green GO button for 5 seconds. The Network Configuration page automatically prints a few seconds after the printer Configuration page.
    - iv. If the reset has been done correctly all of the network addresses should be 0.0.0.0

## Printer Installations for TaxWise TY 2011

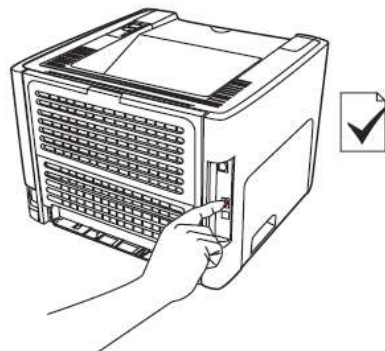
### September 14, 2011

3. Download the HP Laserjet 1022 North American and Western European Full Printing solution file software from the HP website. For Windows XP use... hp\_LJ1020-1022\_Full\_Solution.exe
4. Run the downloaded software following the directions to install the printer driver and network printer. The files in the package will be extracted c:\hp\_LJ1020-1022\_Full\_Solution by default. During extraction, you can change the folder to extract the files to if necessary.
5. The install will be started automatically at the end of the extraction process.
6. Follow the on-screen instructions.
7. To use the already extracted files for another installation, begin the install by double-clicking on the autorun.exe file in the extraction folder.
8. Print a test page at the conclusion of installation.

**NOTE:** After the installation is complete the downloaded hp\_LJ1020-1022\_Full\_Solution.exe file and the extraction folder (by default: C:\hp\_LJ1020-1022\_Full\_Solution) can be deleted to free up 935 MB of hard disk space.

### **HP1320N Network setup**

1. Setup the network
2. Reset the HP1320N to its initial condition where it is searching for a network address
  - a. From the hard powered off state do the following
    - i. While pressing the Reset button on the back of the printer, turn on the printer. Continue to press the Reset button until the printer is in the Ready state (from 5 to 30 seconds).



- ii. If you have problems during the season doing this hard reset will often fix them
- iii. To assure the printer has been reset, when the printer is in the ready state, press and hold the GO button for 5 seconds. The Network Configuration page automatically prints a few seconds after the printer Configuration page.

## **Printer Installations for TaxWise TY 2011**

**September 14, 2011**

- iv. If the reset has been done correctly all of the network addresses should be 0.0.0.0
  
3. Download the HP LaserJet 1320 North American and Western European Full Printing solution file LJ1160-1320AMWE.exe software from the HP website
4. On the main system on the network where the printer messages should be sent. Run the downloaded software following the directions to install the printer driver and network printer installation This software will create a directory in the root of the hard drive into which it will unpack the software(with HP1320 in the directory name). Copy this directory to a flash key to save running the unpack process on every system.
5. Install the HP printer Toolbox
6. Print a test page at the conclusion of installation
7. The other systems on the network do not need the full printer solution install so for those systems execute the file hpsetup.exe from the folder that was copied earlier to a flash key.
8. DO NOT do the full install, just do the minimal printer install

### **VARIATIONS ON THE THEME**

#### **Print Server does NOT come with port installation software**

1. Install a local USB printer as described above
2. Change the print server to a fixed IP address as described above
3. Go to the Printers and Faxes folder, right click the locally installed USB printer and select properties
4. Click the PORTS tab and select “Add Port...”
5. Select Standard TCP/IP Port and click “New Port”
6. The “Welcome to add standard TCP/IP Printer Port Wizard” will open, Click Next
7. Enter the IP address in the form 192.168.x.yyy in the first box
8. Select and change the second box to a useful name such as “Print Server Port”
9. If windows finds a print server it recognizes let that selection be and choose next, otherwise let “generic network card” be the server
10. A summary will appear with port 9100, RAW selected just click “Finish”
11. Close the “Printer Ports dialog box”
12. In the Printer properties dialog box (eg HP LaserJet 1022 Properties) the newly created printer port should be selected
13. Uncheck bidirectional support (typically not supported when print server are used with USB printers)
14. Click Apply, Click the “General tab” and print a test page – if the test page does not immediately print then ...
15. Close the printer properties dialog box by clicking OK

## **Printer Installations for TaxWise TY 2011**

**September 14, 2011**

16. Go to the Printers and Faxes folder, right click the printer that has just been networked and select "Use Printer Online" and the printer should start printing.

### **Adding the HP LaserJet 1320 with a separate Print Server**

#### **Get the Printer Software**

1. Download the HP LaserJet 1320 PCL6 Driver software from the HP website. Note that there is no point in using the full solution software because bidirectional communication is only enabled in high end print routers not in the more affordable routers such as the Belkin
2. Run the downloaded file and it will create a directory of setup files which can be copied to a flash drive for use on multiple systems
3. The process from here is to setup the Print Server then setup up the printer using these downloaded files.

#### **Set the Print Server to a fixed IP address**

4. Reset the print server to factory defaults (usually by holding the reset button as the print server is powered on) this default will normally allow the print server to pick up an IP address when it is attached to the local network. Make sure that the Print server is really reset by following the instructions in the documentation completely and exactly
5. Connect the print server and printer to the network in which they are going to be used
6. The print server will normally come with software that will find the print server on the network (For Belkin F1UP0301 that software is psf.exe) run the software and note the ip address of the print server. This address will be of the form 192.168.x.yyy where x is typically 0,1,or 2 and yyy is a 3 digit number. If the print server does not have an address within the same subnet as the computer upon which the setup is being done (ie x is the same for both print server and computer) then the reset to factory defaults was not done correctly.
7. Open a web browser and type the IP address of the router into the address bar hit enter or click GO
8. The router status page will typically be displayed with the possibility of selecting an IP address tab
9. Select the IP address tab and disable DHCP client, type in the chosen fixed IP address and subnet mask.
  - a. The IP address must be of the form 192.168.x.yyy x must be the same number as the rest of the addresses in the network in which the print server will be installed. Yyy must be an address that is not currently used on the network.
  - b. The Gateway address may also have to be typed in and can be found from another computer
  - c. Click apply changes (or equivalent)

## **Printer Installations for TaxWise TY 2011**

**September 14, 2011**

### **Add the Network Printer**

Note that the procedure below uses the standard windows procedure to setup a networking printing port for the printer. It is also possible to install the printer as a local USB printer and then convert that over to a network printer using a variation of the procedure described for the HP 1022. Only the standard windows procedure will be documented below.

10. Setup the network with the computers and print server attached to the router or switch
11. Connect the printer into the print server
12. For each computer that will use the printer do the following 6 steps
13. Open the windows Printers and Faxes folder
14. Right click -> add a printer, click next
15. Local printer attached to this computer should already be selected
  - a. UNCHECK “Automatically detect and install.....”
  - b. Do NOT check network printer
16. Click next
17. Select “Create a new port” and from the drop down box select “standard TCP/IP port”
18. The “Add a tcp/ip printer port wizard appears, click next
19. Type the IP address of the router that was setup earlier in the first box. The same typing will appear in the Port name box select it and change it to a useful name like “Print Server”, click Next
20. If the print server being used is recognized that is fine if it is not windows will use “generic network card” which is fine. A summary screen is produced, click finish
21. The Port will be created and the add printer wizard will move to select the printer. If the HP 1320 has been installed previously it may be in the list presented. If not insert a flash with the “HP LJ1320 PCL6 Driver Only” directory. Select “have disk” and browse to the “HP LJ1320 PCL6 Driver Only” directory. Windows will find the hpc1320c.inf file click open, click OK. Windows will analyze the directory to see what printers are there. Windows will ask if it is ok to install the printer, click Next
22. Windows will ask for the Printer name, keep the default or preferably change the name to HP 3120 Print Server or something similar.
23. Click next a couple more times. Do NOT share the printer it is shared automatically by having it on the network. It will cause confusion if the printer print queue is also shared by this computers windows installation.
24. The printer will be installed and if a test page was requested it will be printed.
25. If the print server comes with software to detect the print server and install a “port” run that software (instport.exe in the case of the Belkin print server)
26. It will find the print server and install the port
27. Open the Printers and Faxes folder, right click the HP1320 and select properties
28. Select the Ports tab, and change the existing port selection over to the newly created port
29. Print a test page

## **Printer Installations for TaxWise TY 2011**

**September 14, 2011**

30. It may be necessary to go to the Printers and Faxes folder, and right click the printer that has just been networked and select “Use Printer Online” and the printer should start printing.
31. If the print server does not come with software see the paragraph –“Variations on a theme” above

### **If the Printer does not print**

- Make sure that all the IP addresses are correct
- Can you access the print server administration page from the computer that has the problem? If not is the computer’s IP address correct and in the same subnet as the print server
- Is the Port setup correctly
  - Right click on the printer in the Printers and Faxes folder -> select properties
  - Select the PORTS tab and click Configure Port....
  - Make sure that the IP address is correct (if not change it), the Protocol is Raw and the port is 9100

To test printer--attach it to the USB port add the printer locally and make sure it prints.

### **HP LaserJet 1102W Wireless Printer Network Setup**

This newest AARP Tax-Aide purchased wireless printer is a convenient alternative to the wired printers or print servers discussed above. All software required to setup and configure the printer is contained within the printer itself, eliminating the need for an installation CD; though the CD can be used for those that prefer. The installation basically involves connecting the printer to a computer via a USB cable. The installation setup will automatically begin to allow you to establish the printer on the secure network and with a static IP address. Part of the setup routine will ask if it will be a wired or USB connection – choose the applicable option, probably wireless since USB would dictate a shared printer installation. Once this is completed, the other computers are setup up by starting Internet Explorer, going to the 1102W IP address and running the setup routine from the menu that is displayed.