Mac OS X

Nikon

Configuring the WT-4 for ftp (Ad-hoc Mode)

This document provides basic instructions on configuring the WT-4 wireless transmitter and a Mac OS X (10.5.2) ftp server for transmission over an ad-hoc (peer-to-peer) network consisting solely of the ftp server and WT-4.



Introduction

This section describes a simple wireless network consisting solely of the WT-4 and an ftp server, with no connections to other networks or devices. Follow the steps below to use the WT-4 in this type of network.

1: Get Ready	pg. 2
2: Assign the ftp Server an IP Address	pg. 3
3: Configure the Network	pg. 6
4: Copy the Network Profile to the Camera	pg. 9
5: Connect to the ftp Serverp	g. 14

1: Get Ready

Equipment

Ready the following:

- A WT-4 wireless transmitter *
- A fully-charged EN-EL3e battery for the WT-4
- A Nikon D3 or D300 digital SLR camera
- A fully-charged battery for the camera (an EN-EL4a for the D3, a EN-EL3e for the D300)
- A computer with Mac OS X (10.5.2) *, the WT-4 Setup Utility* installed
- A memory card
- A USB cable
- Manuals for the above equipment

Network Settings

Note the IP addresses, encryption, and other settings that will be used in the wireless LAN. The following are intended as examples only.

- IP address for the WT-4: 192.168.1.4
- IP address for the ftp server: 192.168.1.3
- IP address of the wireless LAN access point: 192.168.1.2
- Subnet mask: 255.255.255.0
- FTP server port: 21
- Network name (SSID): WT-4
- Communication mode: Ad hoc
- Channel: 1
- Authentication: open system
- Authentication: WEP64
- Encryption key: abc12
- Key Index: 1
- * WT-4 firmware version 1.1 and the WT-4 Setup Utility version 1.1 are required when using the WT-4 under Mac OS X version 10.5.2. Updates to the WT-4 firmware and Setup Utility are available on the Nikon website for your area.

2: Assign the ftp Server an IP Address

An ftp service is provided with all supported versions of Mac OS X. Choose an address for the ftp server. The following IP address is intended as an example only.

- IP address: 192.168.1.3
- Subnet mask: 255.255.255.0
- TCP port: 21

2 - 1

Open System Preferences and click Network.



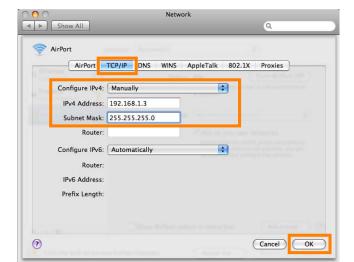
2 - 2

Select AirPort. Click Advanced....

Show All	Network	٩
Lo	ocation: Automatic	•
Ethernet Connected Connected FireWire Not Connected	Status: On AirPort is tur a network.	Turn AirPort Off
e AirPort 🔶	Ask to jo Known netw If no known	rk selected
+ - \$-	Show AirPort status in menu b	Dar Advanced
Click the lock to prever	t further changes. Assist m	e Revert Apply

2 - 3

Select **Manually** from the **Configure IPv4** menu and enter an IP address and sub-net mask. Click **OK** to return to the previous dialog and then click **Apply**.



Click **Show All** to return to the System Preferences dialog. Click **Sharing**.



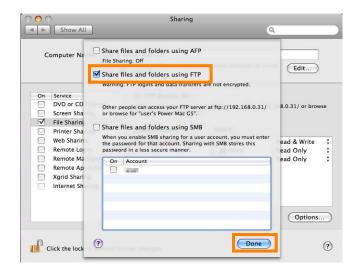
2 - 5

Select File Sharing and click Options.

	rs on your local netwo <mark>rk</mark> can acc ac-g5.local	ess your computer at:	users- Edit
On Service DVD or CD Sharing Server Sharing File Sharing File Sharing File Sharing	 FTP Access: On Other people can access yo for "user's Power Mac GS". Shared Folders: 	ur FTP server at ftp://J Users:	192.168.0.31/ or browse
Web Sharing Remote Login Remote Management Remote Apple Events Xgrid Sharing Internet Sharing	🔊 user's Public Folder	Luser LUSers Everyone	Read & Write Read Only Read Only
	+ -	+ -	Options

2-6

Select Share files and folders using FTP and click Done.



Click **Show All** to return to the "System Preferences" panel and click **Security**.



2 - 8

Open the **Firewall** tab and select **Allow all incoming connections**. This completes the process of setting up an ftp server.

	General FileVault Fire	wall
Allow all incomir Allow only essen		
O Set access for sp	ecific services and applications	
	determines which programs are allowed inc to allow or block incoming connections for	
File Sharing (FT	⁻ P)	
* -		Advanced
+ -		Advanced

3: Configure the Network

3 - 1

Open System Preferences and click Network.



3-2

Click the action button and select **Set Service Order**.

Ethernet Connected	Location:	Automatic Status:	On Turn AirPort Off AirPort is turned on but is not connected to
FireWire Not Connected AirPort On		Network Name:	No network selected
			Ask to join new networks Known networks will be joined automatically. If no known networks are available, you will be asked before joining a new network.
Clic Rename	te Service 2 Service ervice Inactive	Show AirPort state	us in menu bar (Advanced) (? (Assist me) Revert (Apply

Move AirPort to the top of the services list and click **OK**.

Service Order: Ethernet FireWire AirPort	Service Order: AirPort Ethernet FireWire
Drag services to change order.	Drag services to change order.

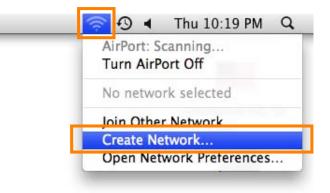
3 - 4

After selecting **AirPort** and confirming that the service is active and that **Show AirPort status in menu bar** is checked, click **Apply**. If AirPort is off, click **Turn AirPort On**.

0	Network	
Show All		٩
	cation: Automatic	•
Ethernet On	Status: On AirPort is tur a network.	Turn AirPort Off ned on but is not connected to
• Firewire ***	Ask to jo Known net	rk selected
+ - *-	Show AirPort status in menu b	Advanced ?
Click the lock to preven	t further changes. Assist m	e Revert Apply

3 - 5

Click the AirPort status icon in the menu bar and select **Create Network...**.



After choosing a network name and channel and adjusting encryption and password options as described below, click **OK**.

		e a Computer-to-Computer network. ne name of the Computer-to-Computer network you create.
	Name:	WT-4
	Channel:	1
		🗹 Require Password
		The password must be entered as exactly 5 ASCII characters or 10 hex digits.
	Password:	[]
	Verify:	
	Security:	40-bit WEP (more compatible)
(?	Cancel

- Name: Enter a name of up to 32 characters. The network in this example uses the identifier WT-4.
- **Channel**: Choose a channel.
- **Require Password**: Select this option to enable WEP encryption.
- **Password**: If WEP encryption is enabled, enter a security key. The length of the key depends on the option selected for **Security**:
- 40-bit (more compatible): Enter a five-character ASCII or ten-digit hexadecimal key.
- **128-bit**: Enter a 13-character ASCII or 26-digit hexadecimal key.

ASCII keys may contain letters, punctuation, and the numbers 0–9, hexadecimal keys the numbers 0–9 and the letters a, b, c, d, e, and f.

• Security: Choose the length of the WEP key.

3-7

Open the **System Preferences** > **Network** panel and confirm that the Network Name is the same as that specified in 3 - 6. Network setup is now complete.

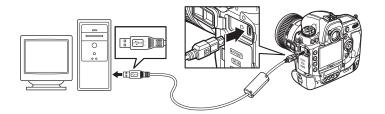
● ○ ○	Network
Show All	٩
Locat	tion: Automatic
AirPort Connected Connected Connected	Status: Connected Turn AirPort Off AirPort is connected to WT-4 and has the IP address 192.168.1.3.
FireWire Not Connected	Network Name: WT-4
	Ask to join new networks Known networks will be joined automatically. If no known networks are available, you will be asked before joining a new network.
+ - \$-	Show AirPort status in menu bar
Click the lock to prevent fu	urther changes. Assist me Revert Apply

4: Copy the Network Profile to the Camera

Use the WT-4 setup utility to copy the network profile to the camera. Before proceeding, make sure that **MTP/PTP** is selected for the **USB** option in the camera setup menu.

4 - 1

After starting the computer, use the supplied USB cable to connect the camera and turn the camera on.



4 - 2

Click the **WT-4 Setup Utility** icon in the Dock.



4 - 3

The dialog shown below will be displayed; click **Next**.



Select Add/Edit profiles and click Next.

00	🕫 WT-4 Setup Utility	
Nikon.		(T) Setup
	Select Action:	
	Select an action and click "Next"	
	Add/Edit profiles	
	Change password	
	O Setup wireless printer	
	O Setup picture folder	
	The camera needs to be connected to Add or Edit profiles.	
	<back next=""></back>	Cancel

4 - 5

Select Add new profile and click Next.

00	🕫 WT-4 Setup Utility	
Nikon.		(T) Setup
	Select a profile Select a profile from the list or select " <add new="" profile="">" to create a new profile</add>	
	Current profiles	
	<add new="" profile=""> Delete profile</add>	
	<back next=""></back>	Cancel

Enter the following information and click **Next**:

- **Profile name**: Enter a name of up to 16 characters (in this example, **FTP1**).
- Profile type: Choose FTP Server.
- Interface type: Choose Wireless & Ethernet for networks that include wireless, or Ethernet only for Ethernet-only networks.

Nikon.	्रि WT-4 Setup Utility	(T) Setup
	Enter profile name Enter a name for the new profile and select the type of profile and interface	
	Profile name FTP1 Profile type FTP Server 🔹 Interface type Wireless & Ethernet 🛟	
Help) (Back Next> C	ancel

4 - 7

Enter the following information and click **Next**.

- Network name (SSID): WT-4
- Communication mode: Ad hoc
- Channel: 1
- Authentication: None (open networks only)
- Encryption: WEP64
- Encryption key: abc12
- Key Index: 1

likon.			((T)) Setu
	Wireless settings		
	Network name (SSID)	WT-4	
	Communication mode	Ad-hoc	
	Channel	1	
	Authentication	Open 🛟	
	Encryption	WEP64	
	Encryption key	abc12 (5 characters)	6
	Key index	1 +	
			_
Help)	<back next=""></back>	(Cancel)

- Enter the following information and click **Next**.
- IP address: 192.168.1.4
- Subnet mask: 255.255.255.0
- **Default gateway**: Remove the check from this option.
- **DNS Server**: Remove the check from this option.

0 0	🐨 WT-4 Setup Utility	
Nikon.		(T) Setup
TCP/IP	settings	
	ain IP address automatically	
IP addres	55 192.168.1.4	
Subnet m	nask 255.255.255.0	
🗌 Defa	ault gateway	
	Server	
	(<back) (next=""></back)>	Cancel
L		

Choosing an IP Address

Be sure that the address for the WT-4 is different from the address used for the ftp server. The addresses for ftp server and WT-4 must however belong to the same class. In this example, we will use 192.168.1.3 for the ftp server and 192.168.1.4 for the WT-4.

4 - 9

Enter ftp settings and click Next.

- **FTP server:** Enter IP address you selected in 2 3 (pg. 3; in this example, 192.168.1.3).
- FTP server port: 21.
- **FTP path:** Leave this field blank to upload pictures to the user's home folder.
- Anonymous login: Select this option for anonymous login, or leave this option unchecked to supply a User ID and Password.
- User ID: If you will not be using anonymous log-in, enter a User name for the ftp server.
- **Password**: If you will not be using anonymous log-in, enter the administrator password.
- Use proxy server: Remove the check from this option.
- **PASV mode:** Remove the check from this option.

Nikon.			(T) Setup
	FTP settings		
	FTP server	192.168.1.3	
	FTP server port	21	
	FTP path		
	Anonymous login	· · · · · · · · · · · · · · · · · · ·	
	User ID	user	
	Password	user	
	Use proxy server		
	Proxy server	-	
	Proxy server port		
	PASV mode		
		(<back) next=""></back)>	(Cancel)

Confirm that settings are correct and click **Next**.

likon.			(TSetu
	Profile information	n	
	Field	Value	
	Profile name	FTP1	
	Profile type	FTP Server	
	Interface type	Wireless & Ethernet	
	3	Wireless settings	
	Network name (SSID)	WT-4	
	Communication mode	Ad-hoc	
	Channel	1	X
	Authentication	Open	T
		(<back) next=""></back)>	Cancel

4 - 11

Select Finish wizard and click Next.



4 - 12

Turn the camera off and disconnect the USB cable. The network profile has now been copied to the camera.

5: Connect to the ftp Server

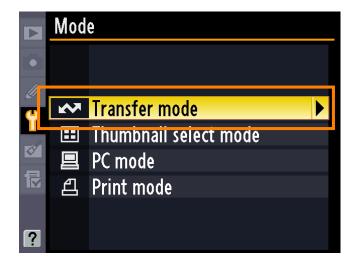
In this step, you will establish a wireless connection between the WT-4 and the ftp server. Before connecting the WT-4, select **MTP/PTP** for the **USB** option in the camera setup menu and confirm that the host computer is running and the user is logged in.

<u>5 - 1</u>

Insert a memory card in the camera, connect the WT-4, and turn the camera on.

5 - 2

Select **Transfer mode** for the **Wireless transmitter** > **Mode** option in the camera setup menu.



5 - 3

A list of available connection profiles will be displayed. Highlight the desired profile and press \circledast .

	Choose profile		\sim
	[《] T [》] 器 <mark>FTP1</mark>		OK)
U	FIP registrati	ion	
Y			
Ē			
?	E QEdit	Delete	

Return to the wireless transmitter menu and turn the WT-4 on. The profile name will be highlighted in green when a connection is established.

This completes the process of connecting to the ftp server.

	Wireless transmitter	
	Mode	
//	Transfer settings	
<u> </u>	Device info	
	Device settings	
✓	FTP1	
?	™0000 ⊕00:00′00" ⊄	

Third-Party Security Software

Third-party security software with firewall support may block the ftp server port, preventing access to the ftp server. This can be avoided by setting the software to allow protocols send and receive access to TCP ports 20 and 21. For more information, see the documentation for the software or firewall.