

Document: #HT000178

Document Title: Install Zebra Wireless Print Server

Product(s): Any TIZ Printer

Procedure:

Installation and Setup of Zebra Wireless Print Server

In order to program the Wireless Print Server (WPS), LabelView must be installed on your PC, and a printer already set up for USB connection. When setting up for wireless, you need to be connected via an USB cable.

Work flow:

- Set up LabelView, and print via USB cable.
- Set up wireless via Zebra Setup Utilities.
- Set up LabelView for wireless.

Zebra Setup Utilities

This Guide will cover the use of Zebra Setup Utilities (ZSU).

Choose Printer

In the **Main Window**, you should see your printer. It will look differently depending on your setup, but for this document, we will choose ZDesigner 110Xi4 203dpi USB001.

Zebra Setup Utilities	- 🗆 🗙
Printers The list below displays installed printers. To configure a printer, select it and choose one of th	e configuration options below.
ZDesigner 110Xi4 203 dpi USB001 ZDesigner 110Xi4 300 dpi USB002	Install New Printer
ZDesigner Z4Mplus 203DPI USB003	Refresh Printer List
Printer Configuration	
Configure Printer Settings	Fonts and Graphics
Configure Print Quality	Printer Tools
Configure Printer Connectivity	unication With Printer
General Operations Perform the following applic perations	
Help Deptions	Close

Click "Configure Printer Connectivity".

Connectivity Type

Connectivity Setup Wizard ×
Connectivity type Select the type of connectivity option you are setting up.
© <u>W</u> ired ● Wire <u>l</u> ess
Help Cancel < <u>B</u> ack <u>N</u> ext > <u>F</u> inish

Click "Wireless", then "<u>N</u>ext".

IP Address

Fill out accordingly. Host name can be anything, but setting it to ZebraPrinter makes it easier to find it in a list.

	Connectivity Setup Wizard	×
IP address Select how yo	ou want the Print Server to obtain an IP address.	
	DHCP Static Hostname: ZebraPrinter Client ID Settings on v MAC ADDRESS v Suffix:	
Help	Cancel < <u>B</u> ack <u>N</u> ext > <u>F</u> inish	

Click "<u>N</u>ext".



Wireless Settings

Fill out accordingly:

	Connectivity Se	etup Wizard 🛛 🗙		
Wireless S Define W	ettings. ireless Security.			
P	lease enter your wireless settings below onfigured on the following page.	. Settings for selected security mode will be		
	ESS <u>I</u> D:	YourNetworkNameHere		
ത്ര	Security <u>m</u> ode:	WEP 128-bit		
	Security <u>u</u> sername:			
	Security <u>p</u> assword:			
All security options may not be available in your printer. Please refer to the Wireless Print Server and Wireless Plus Print Server User Guide for supported security protocols.				
Help	Cancel	< <u>B</u> ack <u>N</u> ext > <u>F</u> inish		

The next screen will change according to the security option you put in here. For this document, WEP 128-bit was chosen.

Click "<u>N</u>ext".



Security Settings

Fill out accordingly:

Connectivity Setup Wizard			×
Security settings. Define detailed wire	eless security settings.		
WEP Settings			
	Authentication type:	Open 🗸	
63	WEP <u>i</u> ndex:	1 🗸	
	Encryption key storage:	Hex Ostring	
	WEP key <u>1</u> :		
	WEP key <u>2</u> :		
	WEP key <u>3</u> :		
	WEP key <u>4</u> :		
Help	Cancel	< <u>B</u> ack <u>N</u> ext > <u>F</u> inish	

Click "<u>N</u>ext".

Click "Advanced Settings" if necessary. If not, click "Next".

Connectivity Setup Wizard
Advanced wireless settings. Define advanced wireless settings.
Advanced wireless settings can be configured by clicking on the button.
Advanced Settings
Help Cancel < Back Next >

Advanced Settings

Advanced Settings" has these settings:

Advanced Wire	eless Settings			
General				
<u>O</u> perating mode:	Infrastructure 🗸			
<u>P</u> reamble:	Long 🗸			
Antennas				
<u>T</u> ransmit:	Diversity 🗸			
<u>R</u> eceive:	Diversity 🗸			
Transmit po <u>w</u> er:	100 🗸			
Front panel wireless password				
The wireless password, which is seperate from wireless LCD items from being seen or chang factory default is 0000.	m the printer password, protects the ed when it is set to a non-zero value. The			
Old pa <u>s</u> sword:	0			
<u>N</u> ew password:	0			
Detection of wired print server				
Note: If running a wireless printer only this will greatly reduce the time needed to associate on the network.				
Skip the <u>d</u> etection of a wired print server on boot up				
	OK Cancel			

Click "OK" then "<u>N</u>ext".

Final Stream

This screen shows what will be sent to the printer.

	Connectivity S	Setup Wizard		×
Final stream. These settings will be sent	t to the printer or saved to	a file.		
AXA AWIA ANC2 ANPP KCO,O,, ANNYOUrHostNameH AWAD,D AWE128,1,O,S,passw AWPO,O AWR,,,,100 AWSYOURNetworkNai ANBS AWLOFF,, AWKOFF,,, AWKOFF,,, AWX03,1,O,S,passwo AXZ	ere ord,,,, meHere,I,L,,,, ırd,,,,			>
Help	Cancel	< <u>B</u> ack	<u>N</u> ext >	<u>F</u> inish
lext".				

<u>Send Data</u>

This screen gives the choice of saving settings to a file. Click "Finish".

	Connectivity Setup Wizard ×
Send data. Send connectiv	rity configuration commands to printer or save it to a file.
	Printer File File name:
Help	Cancel < <u>B</u> ack <u>N</u> ext > <u>F</u> inish

You can now remove the USB cable.

Print Network Label

On the bagger, go via Technical Assist to Printer screen to clear labels, then print a network label to find printer IP address. Your label should look something like this:

ZTC 110Xi4-203i	
HOURNETWORKNAMEHERE	
2.12.1761	OPTION FIRMWARE
Wireless	PRIMARY NETWORK
NU	LOAD FROM EXT?
	ACTIVE PRINTSRVR
ALL WIRED	TP PROTOCOL
ADD 000 000 000	TP ADDRESS
255 255 255 000	STENET MASK
	DEFAILT GATEWAY
010 003 001 088	WINS SERVER
YES	TIMEOUT CHECKING
300	TIMEOUT VALUE
000	ARP INTERVAL
9100	BASE RAW PORT
000000000000	MAC ADDRESS
INTERNAL WIRED	
ALL	IP PROTOCOL
000.000.000.000	IP ADDRESS
255.255.255.000	SUBNET MASK
000.000.000.000	DEFAULT GATEWAY
000.000.000.000	WINS SERVER
YES	TIMEOUT CHECKING
300	TIMEOUT VALUE
000	ARP INTERVAL
9100	BASE RAW PORT
MIDBIRCC+	MAC ADDRESS
WIRELESS*	TD DDOTOCOT
ALL	TP ADDRESS
255 255 255 000	CITENET MACK
192 168 000 001	DEFAILT GATEWAY
192.168.000.002	WINS SERVER
YES	TIMEOUT CHECKING
300	TIMEOUT VALUE
000	ARP INTERVAL
9100	BASE RAW PORT
YES	CARD INSERTED
02DFH	CARD MFG ID
9103H	CARD PRODUCT ID
001977c191A	MAC ADDRESS
YES	DRIVER INSTALLED
INFRASTRUCTURE	OPERATING MODE
YOURNETWORKNAMEHERE	ESSID
100	TX POWER
11Mb/s	CURRENT TX RATE
DIVERSITY	KECEIVE ANTENNA
OPEN	WED TYDE
WDA DSK	WLAN SECURITY
1	WEP INDEX
020	POOR SIGNAL
LONG	PREAMBLE
ON	PULSE ENABLED
15	PULSE RATE
OFF	INTL MODE
07FFH	CHANNEL MODE



Ping Connection Test

Read the address from **IP ADDRESS** in the table above. Open a command prompt, and **PING** the printer.

Windows XP and Windows 7:

Start – "Run", type "CMD" and press "Enter".

Windows 8:

Go to "Charms" (lower right corner), click on "Search" (magnifying glass), and type "CMD", and press "Enter".

In the CMD window:

C:\Users\Username>ping 192.168.0.157

Pinging 192.168.0.157 with 32 bytes of data: Reply from 192.168.0.157: bytes=32 time=118ms TTL=60 Reply from 192.168.0.157: bytes=32 time=5ms TTL=60 Reply from 192.168.0.157: bytes=32 time=108ms TTL=60 Reply from 192.168.0.157: bytes=32 time=4ms TTL=60



LabelView Setup

In LabelView, you need to open a label, then click "File" – "Select printer"

Ľ	v					
8	File	Edit Vie	w Objects	Data sources	Tools	
	*	New		(Ctrl+N	
	2	<u>O</u> pen		(Ctrl+O	
:		I <u>m</u> port			•	
-		<u>C</u> lose				
		Close All				
C		<u>S</u> ave			Ctrl+S	
3		S <u>a</u> ve As		Sh	ift+F3	
Г		Export			•	
N.		Label/Page	setup			
	٩	Select p <u>r</u> int	er 🦯 🗖		F5	
		Printer setu	ıp V	Sh	ift+F5	
1	۲	<u>P</u> rint			Ctrl+P	
q		Proper <u>t</u> ies.				
9		1 Zebra 200) dpi stored la	abel 1.lbl		
٩		2 00 Wireless Zebra 200 dpi stored label 1.lbl				
1		3 zebra 300 dpi stored label 2.lbl				
H		4 RAP label	.lbl			
-		Enter passy	<u>v</u> ord			
Ľ		Exit				

Choose your printer. Click "Port..."

	Printer			×
Name	Port		Settings	
Fax HP ePrint	SHRFAX:		<u>C</u> OM	
HP Laser Jet 1200 Series PCL 5 Service	192.168.0.161		<u>R</u> emove	
Send To OneNote 2013	nul:		<u>A</u> dd	
Tec B572 ZDesigner 110Xi4 203 dpi ZDesigner 110Xi4 300 dpi ZDesigner Z4Mplus 203DPI	->USB001 USB001 USB002 USB003		<u>P</u> ort	
Zebra 110Xi4 (300dpi) Zebra 140Xi4 (203dpi)	->USB002 ->USB001			
	0	Canc	el <u>H</u> elp	

Click "TCP/IP"

Change Printer port of Zebra 140Xi4 (
Port	
LADB0: LPT1: LPT2: LPT3: nul: PORTPROMPT: SHRFAX:	
USB002 USB003	TCP/IP (Telnet) Connection
< > Network printers TCP/IP	IP Address : 192 . 168 . 0 . 157 Port Number :
✓ Direct access	9100
OK Cancel <u>H</u> elp	ОК Са

Type in the IP Address from your label. Check the connection with the network button next to the address field.



Test connection ×	
"Establish connection successfully !"	
ОК	

Click "OK", "OK", "OK" and "OK".

You can now test your connection by sending a label over to your printer.

Troubleshooting Wireless Print Server Installation

Advanced Poly-Packaging can only do the wireless setup providing the customer's network automatically assigns addresses.

If customer's network is based on anything else than TCP/IP, or there is an issue such as IP address conflict, the customer will have to call on their IT service.

IP Address Conflict

When a device is logging on to a network, it will look for certain standard items, such as a DHCP server. It will request an address from DHCP, and the DHCP server will provide any given unused address.

In some rare cases, DHCP can give out an address that is already in use. An example:

A laptop had been assigned address 192.168.0.157, and then went into sleep mode due to not being used for a while. DHCP saw 157 as free, and will reassign 157 to the next device trying to log on. When the laptop is being used again, it will try to re-use 157, and a conflict will occur. For the most part, DHCP will be able to resolve this by reassigning addresses.

It does happen that DHCP doesn't see the conflict, and it will persist. If this or similar scenarios happens to our wireless card, the result is most often that LabelView is inexplicably unable to communicate with the printer for what can be extended periods of time before being online again.

The easiest way to tell whether this is happening, is to use a small program called Wireless Network Watcher, from Nirsoft. It can be found <u>here</u>:

This little utility is safe to use, because it only lists network devices without allowing anything to be changed.

You need your printer's network address and MAC address, which can either be accessed from the front panel, or use the touch screen to get into the printer settings under "**Technical Assist**" – "**Printer Status**" and press "**Network Label**".

Once you have it, compare your Bagger's IP Address with the listing in Wireless Network Watcher. If there is a conflict, your printer's IP address will most likely show up with the wrong MAC address.

The customer's IT service will have to resolve this conflict by manually reassigning addresses.

Glossary

TCP/IP

<u>Transport Control Protocol/Internet Protocol is the system standard for internet,</u> and most Intranet (Internal network) systems that will be encountered when installing network printers.

IP Address

Internet Protocol address is the address that identifies an individual computer, or a device such as a wireless network card on an Intranet. It is generally in the form: XXX.XXX.XXX.XXX, ranging from 000.000.000 to 255.255.255.255. When assigning addresses, a DHCP server will assign within a range, such as 192.168.0.1 to 192.168.0.255. 99% of all home networks will use the 192.168.X.XXX range, and in many cases the same range can be found in business networks. The address of the computer can be checked by going to "Start" – "Run", type in "cmd". Once the black Command window comes up, type in "ipconfig", and it will list the current network status.

DHCP

<u>Dynamic Host Configuration Protocol is a network system that automatically</u> assigns IP addresses to any PC/Mac/printer/device that logs on to the network.

MAC Address

<u>M</u>edia <u>A</u>ccess <u>C</u>ontrol Address is a hard-coded, unique number for every network item ever made by any manufacturer. It is a hexadecimal number, and can look like XXXXXXXXXX, OR XX:XX:XX:XX:XX, OR XX-XX-XX-XX-XX.

The Wireless Print Servers sold by APPI have a sticker listing the MAC Address for that device. It comes in a separate bag, and can be placed on the Wireless Print Server.