

BIXOLON®

Software Manual
Net Configuration Tool

Rev. 4.04

<http://www.bixon.com>

Introduction

This Manual provides information on installation, uninstallation and how to change network settings for BIXOLON devices. It is advisable to read the contents of this manual carefully before using “Net Configuration Tool” utility for the first time.

We at BIXOLON maintain ongoing efforts to enhance and upgrade the functions and quality of all our products. In following, product specifications and/or user manual content may be changed without prior notice.

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1. About this manual

This Net Configuration Tool Manual explains how to install and configure the Net Configuration Tool on Windows OS on PC.

2. Supported Operating Systems

The following operating systems are supported:

- Microsoft® Windows XP SP3 (32bit)
- Microsoft® Windows XP SP1 or later (64bit)
- Microsoft Windows Server 2003 SP1 or later (32bit/64bit)
- Microsoft Windows VISTA (32bit/64bit)
- Microsoft Windows Server 2008 (32bit/64bit)
- Microsoft Windows Server 2008R2 (64bit)
- Microsoft Windows 7 (32bit/64bit)
- Microsoft Windows 8 (32bit/64bit)
- Microsoft Windows Server 2012 (64bit)
- Microsoft Windows 10 (32bit/64bit)

3. Supported Printers

“Net Configuration Tool” is available for the following BIXOLON printers.

SPP Series

SPP-R200II, R200III, R210, R220, R300, R310, R318, R400, R410, R418, L3000

SRP Series

SRP-350plus, 350II, 350/352plusII, 350/352III, 350/352splusIII, 330, 330/332II, 380/382, F310/312, F310/312/313II, S300, Q300/Q302, QE300/QE302, 275II, 275III, 770II, 770III, E300/E302

SLP Series

SLP-TX400/403, T400/403, TX420/423, TX200/223, DX420/423, D420/423, D420/423 DX220/223, D220/223, DL410/413

Note

The models below have a dedicated setting utility able to change network information. Use for that utility.

BGT-100P, BGT-102P, SRP-Q300H, SRP-Q302H

4. Before Startup

The Net Configuration Tool can be found in the bundled CD and the latest version is available for download at our website (www.bixolon.com).

5. Installation & Uninstallation

5-1 Installation on Windows XP / Server 2003

- 1) Double-click the file "Software_NetConfigurationTool_V3.x.x.exe".
- 2) Follow the instructions on the screen to complete the installation process.

5-2 Installation on Windows Vista / Server 2008 / 7 / 8 / Server 2012 / 10

- 1) Double-click Net Configuration Setup_Vx.x.x.exe.
 - ※ Administrator privilege may be required to run the installation file.
- 2) Follow the instructions on the screen to complete the installation process.

5-3 Uninstallation

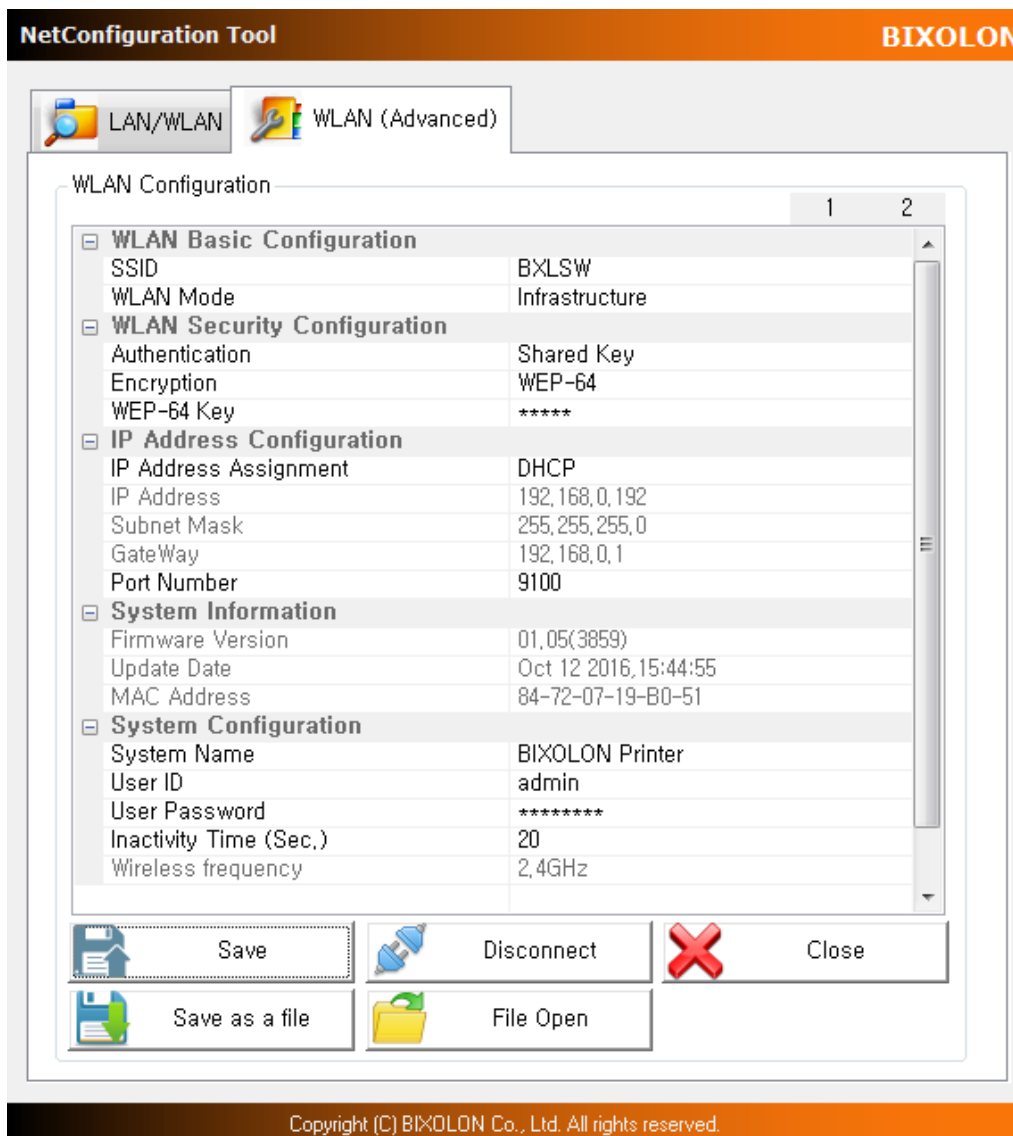
- 1) Open "Add or Remove Programs" or "Remove Programs" in the Control Panel.
 - ※ XP or Server 2003: Control Panel – Add or Remove Programs
 - ※ Vista or higher OS: Control Panel – Remove Programs
- 2) Select "Net Configuration Tool" and click the "Remove" button to uninstall the Net Configuration Tool on your PC.

6. Configuration

To configure the **LAN settings**, the Ethernet cable should be connected to the printer while the host (PC) and printer are connected to the same network. For configuring the **WLAN settings**, the host and printer should be connected to the same Wi-Fi Access Point or connected to each other using Wi-Fi Direct (P2P).

Note "Connected to the same network" means that the host and printer are connected to the same router or Wi-Fi Access Point.

To configure the **advanced settings of the printer's wireless network** (all configurable WLAN settings), the printer must be connected through a serial port cable or USB cable.



6-1 LAN/WLAN Basic Configuration

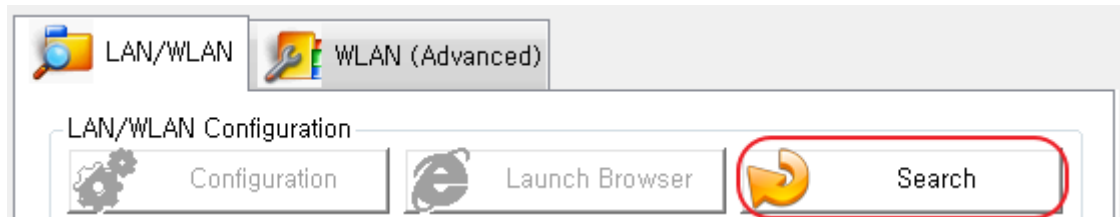
The **LAN/WLAN tab** allows you to search printers connected to the same LAN/WLAN network and configure the printer's network settings required to enable communication between the printer and host. You can also configure the printer's network settings using a web browser.

The following settings can be configured using the Net Configuration Tool. For WLAN, there are other settings beyond those listed below and the available WLAN settings may vary depending on the functions supported by the printer's WLAN module.

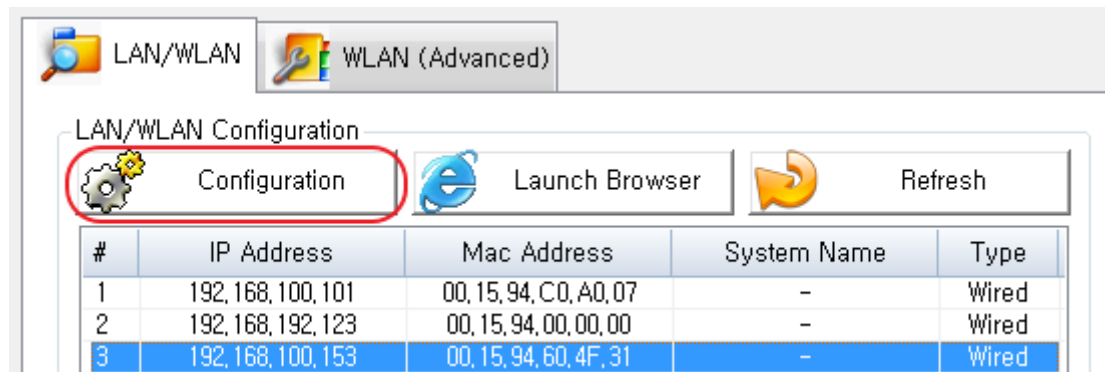
Settings	Description
IP Address Assignment Method	Assign IP address manually or automatically through DHCP. If the network does not support DHCP, you must assign the IP address manually.
IP Address	This information is required for LAN/WLAN communication and a unique IP address must be entered. The communication port is set to 9100 by default. You have to change the port number to use another port.
Subnet Mask	
Gateway	
Port Number	
Inactivity Time	If there is no communication between the host and printer during the set period of time, the connection will be closed automatically. The value can be set between 0 and 3600 seconds (1 hour). If set to 0, this function is disabled.
System Name	A string that indicates the WLAN printer. A maximum of 64 characters can be entered. ※ This string does not display on certain printers.

6-1-1 Configuration of LAN/WLAN Settings Using the Configuration Button

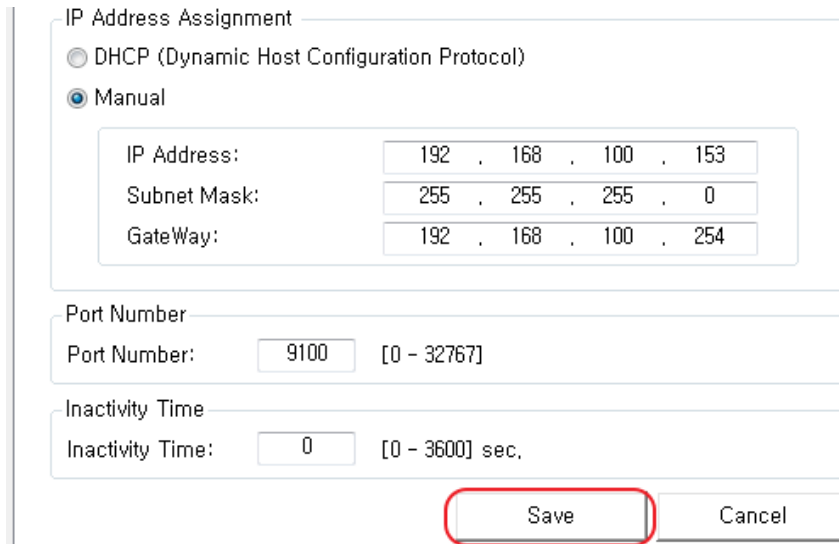
1. Check to make sure the printer is switched on.
2. Click the Search button to search for printers on the network



3. If the Security Alert message pops up, click either **"Unblock"** or **"Allow access"**.
4. From the search results, click the MAC address (Media Access Control Address) or IP address (Internet Protocol Address) of the printer you want to configure.
5. Click either Configuration button or double-click the item you want to configure.



- Configure the network settings of the printer and click the Save button.
 - ※ If DHCP server is not supported, you have to assign IP address manually.
Contact your network administrator for the assignable IP address.
 - ※ When the network settings are configured, it will automatically search for printers connected to the network.



The screenshot shows a dialog box titled "IP Address Assignment". It has two radio buttons: "DHCP (Dynamic Host Configuration Protocol)" and "Manual". The "Manual" option is selected. Below the radio buttons are three input fields for IP configuration:

IP Address:	192	.	168	.	100	.	153
Subnet Mask:	255	.	255	.	255	.	0
GateWay:	192	.	168	.	100	.	254

Below these fields are two more input fields:

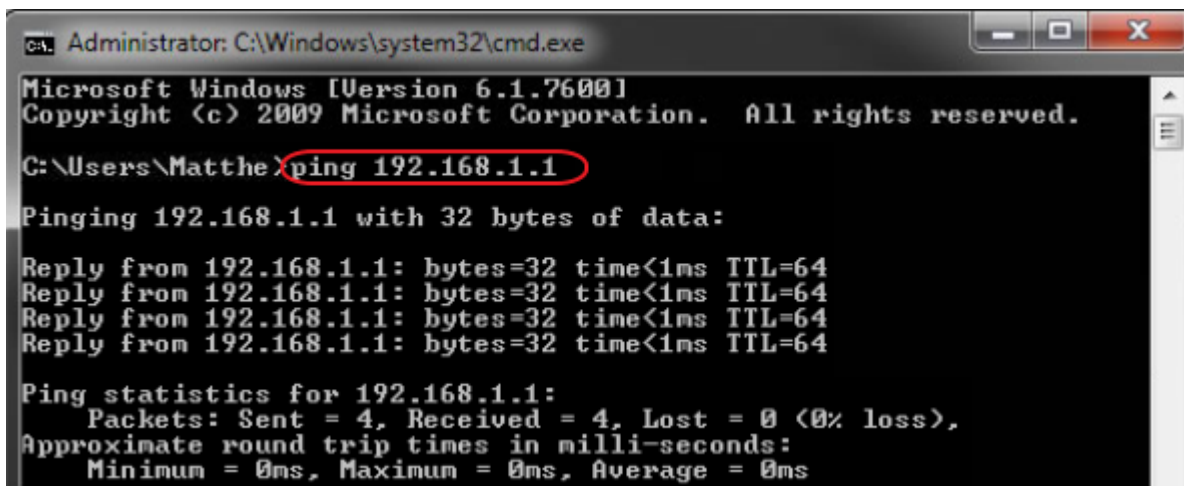
Port Number: 9100 [0 - 32767]

Inactivity Time: 0 [0 - 3600] sec.

At the bottom right, there are two buttons: "Save" (highlighted with a red circle) and "Cancel".

<Network Settings on the Net Configuration Tool>

- Use a ping test to check the connection with the printer.
 - ※ Ping test command: ping "printer's IP address"



```
C:\Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Matthe>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64

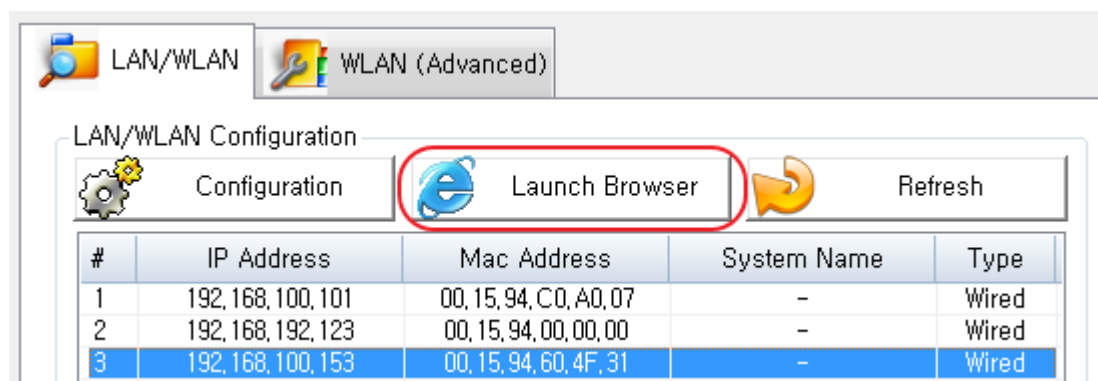
Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

6-1-2 Configuration of LAN/WLAN Settings Using the Launch Browser Button

1. Check to make sure the printer is switched on.
2. Click the Search button to search for printers on the network



3. If the Security Alert message pops up, click either "**Unblock**" or "**Allow access**".
4. From the search results, click the MAC address (Media Access Control Address) or IP address (Internet Protocol Address) of the printer you want to configure.
5. Click the Launch Browser button.
※ If the printer failed to get an IP address from DHCP Server, or invalid IP address assigned by users, you cannot access the web page for network configuration.



6. Check and configure the LAN/WLAN network settings of the printer on the web browser.
※ The network settings may vary depending on the LAN/WLAN communication and the printer's WLAN communication module.

7. You may have to login to change the WLAN settings on the web browser. Login using the ID and password. The default ID and passwords are as follows:
- **User ID: “admin”**
 - **Password: “password”**

WLAN
Configuration

Home	Sign in with your
System	
Protocol	
Network	
Authentication	
Wizard	

ID	<input type="text" value="admin"/>
Password	<input type="password" value="....."/>
<input type="button" value="LOGIN"/>	

8. Click either Apply or Submit to save the changes.

WLAN Configuration

Function	Set-up
Network Mode	InfraNetwork <input type="button" value="v"/>
SSID	<input type="text" value="BXL5W"/>
Inactivity Time	<input type="text" value="0"/>
IP Assignment Method	Automatic Allocation(DHCP) <input type="button" value="v"/>
IP Address	<input type="text" value="192"/> <input type="text" value="168"/> <input type="text" value="0"/> <input type="text" value="164"/>
Subnet Mask	<input type="text" value="255"/> <input type="text" value="255"/> <input type="text" value="255"/> <input type="text" value="0"/>
Gateway	<input type="text" value="192"/> <input type="text" value="168"/> <input type="text" value="0"/> <input type="text" value="1"/>

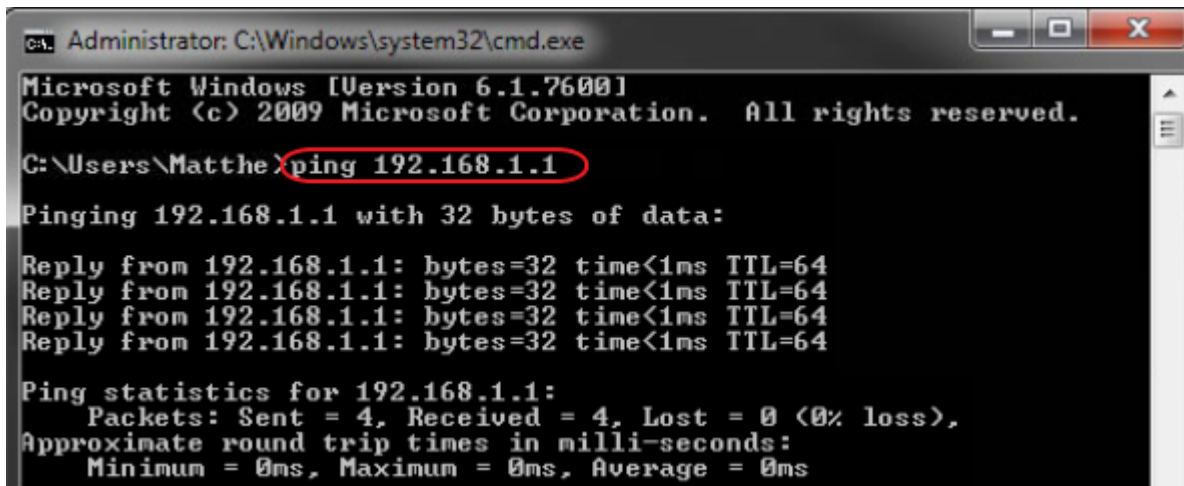
System	System
Wireless	Please use the left navigation to properly configure and maintain your configuration.
Network	Firmware <input type="text" value="38.47"/>
Traffic	MAC Address <input type="text" value="84:72:07:19:b0:2b"/>
Security	Operation Mode <input type="text" value="AP"/>
Etc	SSID <input type="text" value="PRINTER_19B02B"/>
	Channel <input type="text" value="6 [2437 MHz]"/>
	IP Address <input type="text" value="192.168.1.1"/>
	Subnet Mask <input type="text" value="255.255.255.0"/>
	Gateway <input type="text" value="192.168.1.2"/>

<Configurable WLAN Settings on Web Browser>

Configuration	
F/W ver.	2.2
MAC	00:15:94:51:16:70
Source IP	<input type="text" value="192.168.100.192"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
Gateway IP	<input type="text" value="192.168.100.254"/>
Local Port	<input type="text" value="9100"/>
Inactivity Time	<input type="text" value="0"/>
DHCP mode	<input type="checkbox"/>

< Configurable LAN Settings on Web Browser>

- Use a ping test to check the connection with the printer.
 - ※ Ping test command: ping "printer's IP address"



```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Matthe>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64

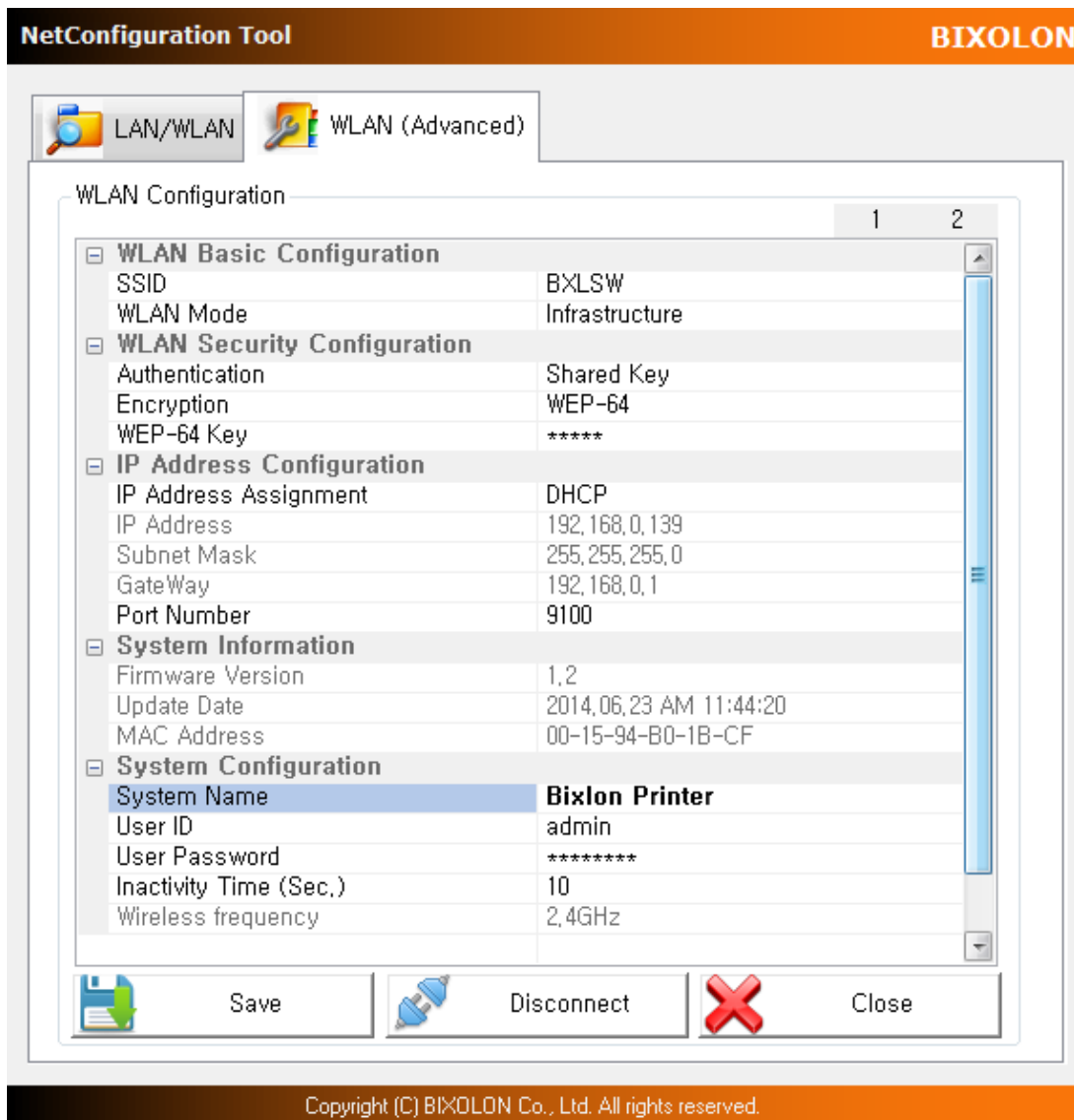
Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

6-2 WLAN Advanced Configuration

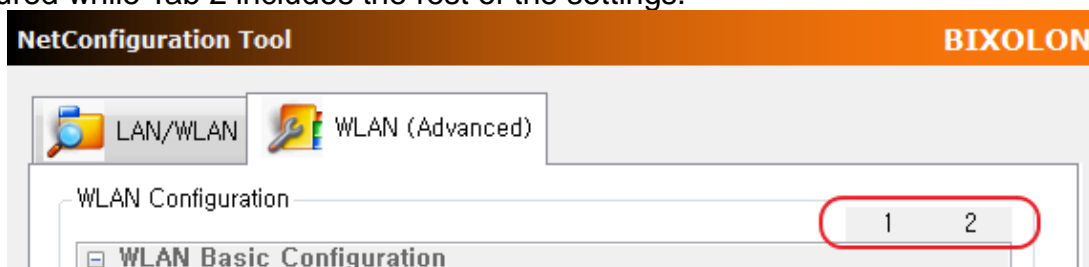
The **WLAN (Advanced)** tab allows you to configure the printer's WLAN settings by connecting to the printer with a cable (serial or USB).

Note

WLAN setting for printers with a WiFi dongle can only be configured by Web Browser.
 Mobile printers support **either serial or USB connection**, or **both of them**.
 Using the wired connection, network information can be also configured.



The following WLAN settings can be configured. Tab 1 includes the settings frequently configured while Tab 2 includes the rest of the settings.



WLAN Basic Configuration	Description
SSID (Service Set Identifier)	A unique identifier that is included in all data header sent via WLAN. A maximum of 32 characters can be entered.
WLAN Mode	Choose one of the following WLAN connection methods: <ul style="list-style-type: none"> - Infrastructure - Ad-Hoc - Wi-Fi Direct - Soft AP(Access Point) ※ Certain models do not support Wi-Fi Direct and Soft AP.
Ad-Hoc Channel	Choose between 1 and 14.
Wi-Fi Direct Channel	Choose 1, 6 or 11.
Wi-Fi Direct PIN Code	Enter 4 or 8 digit number.

WLAN Security Configuration	Description
Authentication	Choose one of the following authentication methods: <ul style="list-style-type: none"> - Open System - Shared Key - WPA-PSK - WPA2-PSK - WPA-EAP - WPA2-EAP
Encryption	Choose one of the following encryption methods: <ul style="list-style-type: none"> - None - WEP-64 - WEP-128 - TKIP - AES - AES + TKIP
WEP-64 Key	Enter 5-letter key or 10-digit hexadecimal number. ※ Only characters that can be entered on the ASCII code table are allowed.
WEP-128 Key	Enter 13-letter key or 26-digit hexadecimal number. ※ Only characters that can be entered on the ASCII code table are allowed.
PSK Key	Enter at least 8-letter key. ※ Only characters that can be entered on the ASCII code table are allowed. A maximum of 63 characters can be entered.
EAP Mode	Choose one of the following EAP Modes: <ul style="list-style-type: none"> - EAP-PEAP - EAP-TTLS - EAP-TLS - EAP-LEAP - EAP-FAST
EAP ID	Enter a maximum of 32 characters for EAP ID.
EAP Password	Enter a maximum of 32 characters for EAP password.

IP Address Configuration	Description
IP Address Assignment	Assign the IP address manually or automatically through DHCP. If the network does not support DHCP, you have to assign IP address manually.
IP Address	This information is required for LAN/WLAN communication and unique IP address must be entered. The communication port is set to 9100 by default. You have to change the port number to use another port.
Subnet mask	
Gateway	
Port Number	

System Configuration	Description								
System Name	This string indicates the WLAN printer. A maximum of 64 characters can be entered. ※ This string may not be shown in certain printers.								
User ID	User ID and Password are used to access a printer from a web browser. A maximum of 32 characters can be entered.								
User Password									
Inactivity Time	If there is no communication between the host and printer during the set period of time, the connection will be closed automatically. The value can be set between 0 and 3600 seconds (1 hour) by a unit of second. If set to 0, this function is disabled.								
Wireless Frequency	<table border="1" style="width: 100%;"> <tbody> <tr> <td style="text-align: center;">2.4GHz</td> <td>2.4GHz is used for frequency.</td> </tr> <tr> <td style="text-align: center;">5.0GHz</td> <td>5.0GHz is used for frequency.</td> </tr> <tr> <td style="text-align: center;">2.4GHz/5.0GHz (Priority: 2.4GHz)</td> <td>Both 2.4GHz/5.0GHz are used. (2.4GHz has a higher priority.)</td> </tr> <tr> <td style="text-align: center;">2.4GHz/5.0GHz (Priority: 5.0GHz)</td> <td>Both 2.4GHz/5.0GHz are used. (5.0GHz has a higher priority.)</td> </tr> </tbody> </table> <p>※ You may not be able to choose frequency in certain printers.</p>	2.4GHz	2.4GHz is used for frequency.	5.0GHz	5.0GHz is used for frequency.	2.4GHz/5.0GHz (Priority: 2.4GHz)	Both 2.4GHz/5.0GHz are used. (2.4GHz has a higher priority.)	2.4GHz/5.0GHz (Priority: 5.0GHz)	Both 2.4GHz/5.0GHz are used. (5.0GHz has a higher priority.)
2.4GHz	2.4GHz is used for frequency.								
5.0GHz	5.0GHz is used for frequency.								
2.4GHz/5.0GHz (Priority: 2.4GHz)	Both 2.4GHz/5.0GHz are used. (2.4GHz has a higher priority.)								
2.4GHz/5.0GHz (Priority: 5.0GHz)	Both 2.4GHz/5.0GHz are used. (5.0GHz has a higher priority.)								

Protocol	Description
HTTPS	HTTPS (Hypertext Transfer Protocol over Secure Socket Layer) is a security enhanced version of HTTP. You can configure WLAN settings using the HTTPS protocol on a web browser. ※ This may not be supported by certain printers.
TELNET	Using the TELNET protocol, you can configure WLAN settings by TELNET interaction. ※ This may not be supported by certain printers.
FTP	Using the FTP protocol, you can configure WLAN settings by editing the file related to WLAN information. ※ This may not be supported by certain printers.
SNMP	MIB-2 (management information base-2) information can be read and written. ※ This may not be supported by certain printers.

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SNMP	Description
SNMP Community Name (Read)	This string indicates the name for trap reading.
SNMP Community Name (Write)	This string indicates the name for trap writing.
SNMP Trap Community	This string indicates the name for trap community.
SNMP Trap IP Address	This string indicates IP address for trap Server.

Certificate Upload	Description
Certificate Type	Select the type of certificate to download to the printer. - CA (Certificate Authority) - Client Key - Client PEM
Certificate File	Start downloading by selecting the type of certificate to download to the printer.

6-3 Configuration

1. Check to make sure the printer is switched on. Connect the host to the printer using a serial or USB cable.

Note

If another device or application is using the port the printer is going to use, connection may fail. Therefore, make sure they use other ports temporarily.

2. Click the Connect button in the WLAN (Advanced) tab.
3. Choose the Interface Type on the Device Connection window and click the Connect button.

Note

When using a serial cable, check the serial communication settings on the printer and change them to the settings as shown in the image. It takes up to 15 seconds to receive WLAN settings on the printer.

The screenshot shows the 'Device Connection' dialog box with the 'SERIAL' interface type selected. The 'Communication Setting' section is highlighted with a red rounded rectangle. The settings are: Port: COM1, Baud Rate: 115200, Data Bits: 8, Parity: None, Stop Bits: 1, and Flow Control: Hardware. The 'Connect' button is also highlighted with a red rounded rectangle.

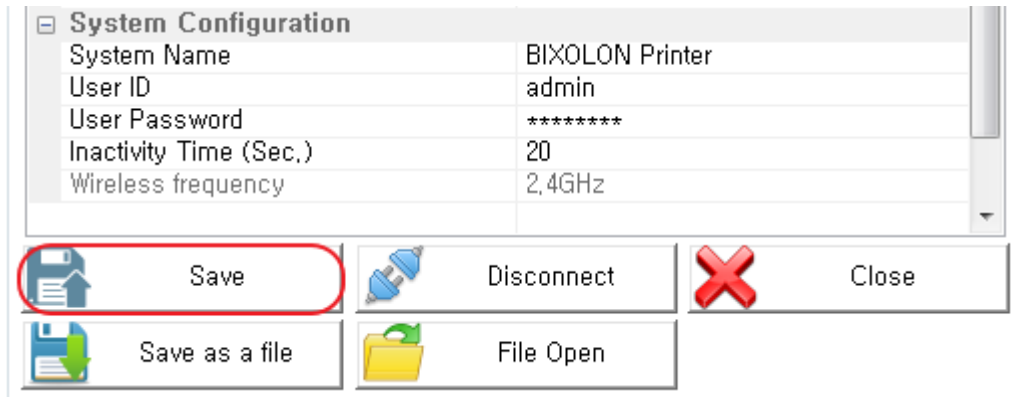
<Serial Interface>

The screenshot shows the 'Device Connection' dialog box with the 'USB' interface type selected. The 'Communication Setting' section is highlighted with a red rounded rectangle. The 'Port' dropdown menu is set to '\\?\\usb#vid_1504&pid_005b#000000c'. The 'Connect' button is also highlighted with a red rounded rectangle.

<USB Interface>

Net Configuration Tool

4. Check the WLAN settings imported from the printer and make necessary changes according to your operating environment.
5. Click the Save button to apply the WLAN settings. The message will show up on the screen when the WLAN settings are changed successfully.



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Warning - U.S.A

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Notice - Canada

This Apparatus complies with class "A" limits for radio interference as specified in the Canadian department of communications radio interference regulations. Get appareil est conforme aux normes class "A" d'interference radio tel que specifier par ministre canadien des communications dans les reglements d'interference radio.

Caution

Some semiconductor devices are easily damaged by static electricity. You should turn the printer "OFF", before you connect or remove the cables on the rear side, in order to guard the printer against the static electricity. If the printer is damaged by the static electricity, you should turn the printer "OFF".

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