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About This Document

This section provides you with contact information, document structure, and organization.

Who Should Use This Document

This manual is intended for use by any user who needs to install, integrate, upgrade, or troubleshoot problems with Zebra Printer Setup Utility.

How This Document Is Organized

The User Guide is organized as follows:

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Introduction and Installation

This chapter provides general information about Zebra Printer Setup Utility Application and includes supported operating systems, connectivity, printers, and devices.

Zebra Printer Setup Utility is an Android™ application (app) which will assist with the set up and configuration of a Zebra Link-OS™ printer. This application is particularly useful for those printers that do not have LCD displays as the application provides an improved method to connect to a printer, configure, and determine its status via a mobile device.

**IMPORTANT:** Depending on your printer model, this application may have limited functionality. Some application features will not be available for the detected printer model. Features that are unavailable will be grayed out or not shown on the menus.

Zebra Printer Setup Utility is available on Google Play™.

Target Audience

Zebra Printer Setup Utility is intended for all customers and partners. Moreover, Zebra Printer Setup Utility may be used by Zebra Technical Support as part of a fee-based service called Install-Configure-Assist (ICA). As part of the service, customers will be instructed how to download the application, and receive guided support throughout the set up process.
Requirements

Printer Platform

Zebra Printer Setup Utility supports the following Zebra Link-OS printers:

<table>
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<th>Mobile Printers</th>
<th>Desktop Printers</th>
<th>Industrial Printers</th>
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<td></td>
</tr>
<tr>
<td>ZQ600 series</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZR118, ZR138, ZR318, ZR328, ZR338, ZR628, and ZR638 printers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Firmware Requirements

The application supports printers running Link-OS 3 thru Link-OS 6.2. Printers running Link-OS Basic are not supported. ZQ112, ZQ210 and ZR118 printer models require a minimum firmware version of 88.01.04.
Connectivity

The application supports the following types of connectivity:

- Bluetooth Classic (BT)
- Wired/Ethernet
- Wireless
- USB On-The-Go

Operating Systems

The application is tested with and supported on the following Android versions:

- 5.1
- 6.x
- 7.x
- 8.x
- 9.x
- 10.x

Device Platform

The application is tested with and supported on the following Android devices:

- Google Pixel 3
- Huawei Mate 20 and Huawei Mate 30
- Nexus 5x and Nexus 6P
- One Plus 6
- Samsung Galaxy S8 and Note 9
- Zebra ET50
- Zebra MC40
- Zebra TC51, TC70, and TC75

The amount of viewable information on a given device varies due to screen size and may require scrolling to access all of the information.
Feature Overview

The features listed below will be explained in more detail in other areas of this user guide.

• Printer discovery via multiple connectivity methods.
• Support for Bluetooth Classic, Wired & Wireless network, and USB.
• Simple printer to mobile computer pairing, using the Print Touch system.
• Connectivity Wizard for configuring connection settings.
• Media Wizard for configuring key Media settings.
• Print Quality Wizard, for optimizing output legibility.
• Access to extensive printer status information, including details on the printer’s serial number, battery status, media settings, connectivity options and odometer values.
• Connectivity to popular file sharing services.
• Ability to retrieve and send files stored on the Mobile device or on a cloud storage provider.
• File transfer – used to send file contents or OS updates to the printer.
• Easy to use “Printer Actions”, including calibrate media, print a directory listing, print a configuration label, print a test label, and reset the printer.
• Install, enable, and disable Virtual Device languages.
• Printer Security Assessment Wizard to assess printer security posture, compare your settings against security best practices, and make changes based on your conditions to increase protection.

Installing Zebra Printer Setup Utility

Zebra Printer Setup Utility is available on Google Play.

**NOTE:** If you download the application from anywhere other than Google Play, your security setting must be enabled to download and install non-market applications. Follow these steps to enable this function.

a. From the main Settings screen, tap **Security**.

b. Tap **Unknown sources**.

c. A check mark is displayed to indicate it is active.
NOTE: If you download the Zebra Printer Setup Utility application (.apk) to a laptop/desktop computer instead of directly to the Android device, you will also need a generic utility to transfer the .apk file to the Android device and install it. One example of a generic utility is Android File Transfer from Google, which allows Mac OS X 10.5 and higher users to transfer files to their Android device. You can also sideload the Zebra Printer Setup Utility .apk; see Sideloading on page 10.

Sideloading

Sideloading means installing applications without using the official application stores such as Google Play, and includes those times when you download the application to a computer.

To sideload Zebra Printer Setup Utility application, complete these steps.

1. Connect your Android device to the computer using the appropriate USB (or micro USB) cable.

2. Open two Windows Explorer windows on your computer: one window for the device and one for the computer.

3. Drag and drop the Zebra Printer Setup Utility application (.apk) from the computer to your device. Because you will need to find the file later, note the location where you placed it on your device. **HINT:** It’s generally easiest to place the file in the root directory of your device rather than inside of a folder.

4. See Figure 1. Open the file manager application on your device. (For example, on a Samsung Galaxy 5, your file manager is My Files. Or, download a file manager application on Google Play.)

5. Locate the Zebra Printer Setup Utility application in the files on your device and tap it to initiate the installation.

Figure 1   Sideload Installation
Discovery and Connectivity

This chapter describes the discovery methods and using the Connectivity Wizard.

**IMPORTANT:** Depending on your printer model, this application may have limited functionality. Some application features will not be available for the detected printer model. Features that are unavailable will be grayed out or not shown on the menus.

**Printer Discovery Methods**

These procedures describe how to use Zebra Printer Setup Utility to discover and connect to your printer. You can use the following methods:

- Tap and Pair with a printer (recommended)
- Discover Printers
- Manually select your printer
- Bluetooth pairing via your device Settings menu

For successful network discovery, your mobile device should be connected to the same subnet as your printer. For Bluetooth communications, Bluetooth must be enabled on your device and printer. NFC must be enabled to use the Print Touch feature. Refer to the user documentation for your device or printer for further details on configuring the printer and device.

**NOTE:** Bluetooth discovery can only retrieve the Friendly Name and MAC Address. If you encounter issues with printer discovery (and at times Zebra Printer Setup Utility may not be able to “discover” your printer), you may need to manually enter your printer’s IP address. Having your printer and mobile device on the same subnet will give you the greatest chance of successfully discovering the printer.

**NOTE:** If your printer has both Bluetooth and network connections enabled, Zebra Printer Setup Utility will pair via the network. If this is the first time you have connected to any printer (or if you have recently unpaired from this printer), and you are pairing via Bluetooth, you will be prompted to confirm the pairing request (2) on both the printer and the device.

**NOTE:** Starting with Link-OS v6, the "bluetooth.discoverable" function is now off by default and other devices cannot see or connect to the printer. With discoverability disabled, the printer will still make connections with a remote device that was previously paired.
**RECOMMENDATION:** Only keep discoverable mode enabled while pairing to a remote device. Once paired, discoverable mode should be disabled. Starting with Link-OS v6, a new feature was introduced to enable limited discovery. Holding down the FEED button for 5 seconds will enable limited discovery. The printer will automatically exit limited discovery mode after 2 minutes have elapsed, or a device has successfully paired with the printer. This enables the printer to operate safely with discoverable mode disabled until a user with physical access to the printer activates it. Upon entering Bluetooth Pairing Mode, the printer will provide feedback that the printer is in Pairing Mode using one of these methods:

- On printers with a “Bluetooth” screen icon or Bluetooth LED, the printer shall flash the “Bluetooth” screen icon or Bluetooth LED on and off every second while in pairing mode.
- On printers without a “Bluetooth” screen icon or Bluetooth LED, the printer shall flash the “Data” icon or Data LED on and off every second while in pairing mode.
- Specifically, on the ZD220, ZD230, and ZD888 models, the 4 flash LED sequence places the printer into Bluetooth Pairing Mode.
- Specifically, on the ZD510 model, the 5 flash LED sequence places the printer into Bluetooth Pairing Mode.

**Print Touch (Tap and Pair)**

The Near Field Communication (NFC) tag on the Zebra printer and your smartphone or tablet may be used to establish radio communication with each other by tapping the devices together or bringing them into close proximity (typically 4 cm or 1.5 in.) or less.

Zebra Printer Setup Utility will acknowledge the start of the Print Touch process, the pairing, and any associated errors, and the successful discovery of the printer.

**IMPORTANT:**

- NFC must be enabled on your device in order to use the Print Touch feature. If you don’t know where the NFC location on your device is, refer to your device’s documentation. The NFC location is often at one of the device’s corners, but could be elsewhere.
- Certain Android phones may not pair via Print Touch. Use one of the other connection methods.

**NOTE:** If you encounter issues with printer discovery (and, at times, Zebra Printer Setup Utility may not be able to “discover” your printer), you may need to manually enter your printer’s IP address. Having your printer and Android device on the same subnet will give you the greatest chance of successfully discovering the printer.

**To pair with a printer via Print Touch, complete these steps.**

1. Launch the Zebra Printer Setup Utility application on your device.
2. See Figure 2. Upon launching for the first time, it will indicate **No printer selected** (1).

   The simplest method to setup a connection to your printer with an NFC-enabled device is to use the **Print Touch** feature on printers that support Print Touch. Printers supporting Print Touch will have this icon on the outside of the printer:

3. Do one of the following:
   - Tap your device’s NFC location against the Print Touch icon on the printer. Zebra Printer Setup Utility will find and connect to the printer. Follow the on-screen prompts.
   - On printers with enhanced security enabled, press and hold the FEED button for 10 seconds until either the Bluetooth icon or the data light flashes; this puts the printer in a discoverable mode. Tap your device’s NFC location against the Print Touch icon on the printer. Zebra Printer Setup Utility will find and connect to the printer. Follow the on-screen prompts.
Discovered Printers

To discover printers without using Print Touch, complete these steps:

1. From the Dashboard, tap the Menu icon.
2. Tap Discover Printers.

Zebra Printer Setup Utility will search and display a list of discovered Bluetooth and network connected printers. At the completion of the discovery, the Discovered Printers group is updated. Progress dialogs are displayed during the discovery process.

3. Tap the desired printer in the list.

Zebra Printer Setup Utility will find and connect to the printer as shown in Figure 1 depending on your Bluetooth or network connection.

Bluetooth Pairing via the Settings Menu

You may pair your mobile device with your printer using the device’s Settings menu.

To pair with a printer using the Settings menu on your device:

1. On your device, go to the Settings menu.
2. Select Connected Devices.

A list of paired devices will appear, as well as a list of unpaired devices.

3. Tap +Pair new device.
4. Tap on the device you wish to pair with.
5. Confirm the pairing code is the same on both your device and on the printer.

A new scan will discover and show the paired devices, as well as other available devices. You may pair with another printer on this screen, initiate a new scan, or exit the menu.
Manually Select Printer

To add a printer using Manually Select Printer, complete these steps.

1. Open the Dashboard.
2. Tap the Menu icon to open the Side Drawer.
3. See Figure 1. Tap Manually Select Printer.
4. Enter the printer’s DNS/IP address, and then tap Search to begin the discovery.

Figure 2  Manually Select a Printer
Connectivity Wizard

The Connectivity Settings screen is where you can adjust the connection settings on the printer for wired/Ethernet, wireless, or Bluetooth.

To change your Connectivity Settings, complete these steps.

1. See Figure 2. From the Dashboard, tap Connectivity Settings.
   - indicates the printer is connected and ready to print.
   - indicates there is a communication error with the printer.
   - If the printer is not connected the background is grayed out.

2. Select your method (Wired Ethernet, Wireless, or Bluetooth) to configure to the printer, and follow the prompts.

Figure 3  Dashboard Screen & Connectivity Settings

Dashboard Screen

Connectivity Screen
Wired Ethernet

Wired Ethernet is used when a printer is connected to your LAN using an Ethernet cable. The advantage of a wired connection is that it is generally faster than a wireless (WiFi) or Bluetooth connection.

Within the Wired/Ethernet Settings menu, you may change, save, and apply the following elements:

- Hostname
- IP Addressing Protocol
- Client ID
- Client ID Type
- Save settings to file. Follow the prompts to save the file to your preferred location.
- Apply settings on the printer

Figure 4  Wired Settings Screens
Wireless

Wireless is the term used to describe any computer network where there is no physical wired connection between sender and receiver, but rather the network is connected by radio waves and/or microwaves to maintain communications. Within the Wireless Settings (see Figure 4) menus, you may change, save, and apply the following elements:

- **Wireless Menu (1)**
  - Hostname
  - Turn Wireless on/off
  - IP Addressing Protocol
  - Power Save Mode

- **Wireless / Client ID Menu (2)**
  - Client ID
  - Client Type
  - IP Address, Subnet Mask, Default Gateway (applicable when Permanent IP Addressing protocol is selected)

- **Wireless / Details Screen (3)**
  - ESSID
  - Security Mode
  - Wireless Band
  - Channel List

**NOTE:** WEP security mode has been removed from Link-OS 6 firmware, but is still applicable in Link-OS 5.x and earlier.

- **Wireless / Apply Settings Screen (4)**
  - Save settings to file. Follow the prompts to save the file to your preferred location.
  - Apply settings on the printer

*Figure 5  Wireless Settings Screens*
Bluetooth

Bluetooth is a method where devices such as cell phones, computers, and printers can be easily interconnected using a short-range wireless connection. The transceiver operates on a frequency band of 2.45 GHz that is available globally (with some variation of bandwidth in different countries).

Within the Bluetooth Settings menus, you may change, save, and apply the following elements:

- **Bluetooth Menu (1)**
  - Enable/Disable Bluetooth
  - Discoverable
  - Friendly Name
  - Authentication PIN

- **Bluetooth / Advanced Menu (2)**
  - Minimum Bluetooth Security Mode
  - Bonding
  - Enable Reconnect

- **Bluetooth / Apply Settings Screen (3)**
  - Save settings to file. Follow the prompts to save the file to your preferred location.
  - Apply Settings

**Figure 6** Bluetooth Settings Screens

(1) Bluetooth

(2) Bluetooth / Advanced

(3) Apply Settings Screen
Unpair a Printer

If you need to unpair a Bluetooth-connected printer (for example, for troubleshooting purposes), you will do so using the Settings menu—not inside the Zebra Printer Setup Utility application. If you prefer to deselect a printer, see Deselect a Printer on page 18.

To unpair a Bluetooth-connected printer, complete these steps.

1. On your device, go to the Settings menu.
2. Select Bluetooth.
   A list of paired devices will appear.
3. Tap on the Settings icon beside the printer to be unpaired.
4. Tap on Unpair.
   A new scan will discover and show the available devices. You may pair with a printer on this screen, initiate a new scan, or exit the menu.

Printer Ready State

The ready state of the printers are checked at specific times. A pop-up box displays a warning if any of the printers are offline or not ready to print. Ready states are checked:

• Upon start-up of the application
• When the application gets focus back
• At the end of the discovery process
• When a printer is selected

Error on Connecting

NOTE: Certain printer/device combinations may experience a delay when an error dialog appears or when trying to reconnect. Please allow up to 75 seconds for the process to complete.
Deselect a Printer

If you wish to disconnect the Printer Setup Utility from a printer, you may choose **Deselect printer**. This is a good option if you only need to step away for a short time and want an easy way to reconnect with the same printer.

**To deselect a printer, complete these steps.**

1. From the Dashboard, tap the Menu icon 📅 to open the Side Drawer.
2. Tap **Deselect Current Printer**.
   - Tap CONFIRM if you wish to deselect the printer. The printer will remain available in the **Recently Selected** menu.
   - Tap CANCEL to cancel the operation.

**Figure 7  Manually Deselect a Printer**

(1) Side Drawer

(2) Confirm Deselection
This chapter describes the steps to set up the media parameters and calibrate the sensors.

**IMPORTANT:** Depending on your printer model, this application may have limited functionality. Some application features will not be available for the detected printer model. Features that are unavailable will be grayed out or not shown on the menus.

### Media Settings

The Media Settings menu will provide details on the current media, including width and length, and the media type. From this menu, you may change the media type, width, length, and orientation.

**To change your Media Settings, complete these steps.**

1. See Figure 7. From the Dashboard, tap **Media Settings**. From this screen, you can, see the current media settings.
   - Tap **Media Settings** again to change **Media Type**, **Width**, or **Length**
   - Tap **Print Test Label** to print test labels with the current settings.
2. Tap Media Settings again to enter a series of detailed menus. Within the Media Settings menus, you may adjust, apply, and save the following elements:

- **Media Screen (1)**
  - Adjust the Media Type (label/tag or receipt)
  - Adjust the Width
  - Adjust the Length
  - Adjust the Orientation

- **Media Details Screen (2)**
  - Adjust the Media Type (continuous, gap, or black mark)
  - Adjust the Type of Transfer (direct thermal or thermal transfer)
  - Adjust the Media Handling (rewind, tear off, cutter, etc.)

- **Media / Apply Settings Screen (3)**
  - Save settings to file.
  - Apply settings on the printer.
Figure 8 Media Settings Screens

(1) Media Screen

(2) Media / Details Screen

(3) Apply Settings Screen
This chapter provides instructions to view and adjust the print quality of your printer.

IMPORTANT: Depending on your printer model, this application may have limited functionality. Some application features will not be available for the detected printer model. Features that are unavailable will be grayed out or not shown on the menus.

**Print Quality Assistant**

The Print Quality Assistant will permit you to print preset speed and darkness settings on labels, save and apply these values, and ultimately fine-tune your printed labels.

IMPORTANT: The ZD510 printer speed and darkness settings are determined by the printer cartridge that is installed. The Print Quality Assistant will not change any values on this printer.

**To open Print Quality Assistant, complete these steps.**

1. See Figure 9. From the Dashboard, tap **Print Quality**.
2. Tap **Print Quality Assistant** to enter a series of detailed menus.
Figure 9  Dashboard Screen & Print Quality Settings

See Figure 10. Within the **Print Quality Assistant** menus, you may adjust and apply the following elements:

- **Sample Labels Screen (1)**
  - Adjust the **No. of Labels to Print**. You may pick from 4, 9, 16, or 25 labels.

- **Generate Test Labels (2)**
  The numbers of labels printed is determined by the entry in the previous screen.

- **Select a Label Screen (3)**
  - Adjust the **Label Identifier**
    Tap the Label Identifier to select one of the preset Speed and Darkness options
    - AA - Speed 2.0, Darkness 15.0
    - AB - Speed 4.0, Darkness 15.0
    - BA - Speed 2.0, Darkness 30.0
    - BB - Speed 4.0, Darkness 30.0

- **Apply Settings Screen (4)**
  - **Save settings to file.** Follow the prompts to save the file to your preferred location.
  - **Apply** settings on the printer.

Figure 10  Print Quality Settings Screens
(1) Sample Labels Screen

After tapping next, the selected number of labels will print with different speed and darkness combinations, each one marked with a two-letter identifier.

Note: Selecting a larger number of labels will result in a wider range of speed and darkness combinations.

No. of Labels to Print:

4

Next

Cancel

(2) Generating Test Labels

Use the following guidelines:
- Consistent print density across the label
- Clearly defined, solid black bar code
- Evenly black, well-formed text

Note: Minimal speed and darkness combinations can extend the life of the printhead.

Label Identifier:

Generating test labels...

Please note:

(3) Select a Label

Use the following guidelines:
- Consistent print density across the label
- Clearly defined, solid black bar code
- Evenly black, well-formed text

Note: Minimal speed and darkness combinations can extend the life of the printhead.

Label Identifier:

AA

Speed:

2.0

Darkness:

15.0

Previous

Cancel

Next

(4) Apply Settings

Settings are not saved on the printer until you tap the apply button below.

Save settings to file

Previous

Cancel

Apply
Manually Adjust Print Quality

You may manually adjust the print quality of your printer.

To manually adjust print quality, complete these steps.
1. See Figure 11. From the Dashboard, tap Print Quality.
2. Tap Manually Adjust (2).

Figure 11  Dashboard Screen & Print Quality Settings

3. Within the Manually Adjust menu, you may adjust and apply the following elements:
   
   • Speed and Darkness Screen (3)
     Move the slider to change each setting.
   
   • Apply Settings Screen (4)
     • Save settings to file. Follow the prompts to save the file to your preferred location.
     • Apply settings on the printer.

   NOTE: When using a ZQ112, ZQ210 or ZR118, the displayed darkness value is the ZPL value converted from the CPCL darkness value.
Available Files and Printer Actions

This chapter describes information provided in Available Files and Printer Actions in the Zebra Printer Setup Utility. It also includes information about the Security Assessment Wizard.

**IMPORTANT:** Depending on your printer model, this application may have limited functionality. Some application features will not be available for the detected printer model. Features that are unavailable will be grayed out or not shown on the menus.

### Available Files

If you tap on **Available Files**, a list of files is displayed. From this list, if you tap on a file name, a dialog is displayed with the option to send the file to the printer. This feature can be used to send files containing ZPL, SGD commands, or printer operating system files to the printer.

After installing a firmware file, you may need to reconnect the printer. See [Discovery and Connectivity](#) on page 10 for more information.

### Printer Actions

All actions on this menu except for the Security Assessment Wizard are performed immediately. For example, if you select **Calibrate Media**, the printer will perform that function immediately after you select that action and you will see the printer feeding media out during the calibration. For the Security Assessment Wizard, you will enter a set of supplemental screens.

1. From the Dashboard, tap **Printer Actions**.
2. Select the desired action.
Figure 12  Dashboard (1) and Printer Actions (2) Screens

Printer Actions Elements

Within the **Printer Actions** Settings menu, you may choose from the following elements:

- **Calibrate Media** - automatically starts a media calibration on the printer.
- **Print Directory List** - automatically prints a list of files stored on the printer.
- **Print Configuration Label** - automatically prints a configuration label.
- **Print Test Label** - automatically prints a test label.
- **Reset Printer** - automatically resets the printer.
- **Security Assessment** - accesses the Security Assessment wizard.
- **Enable Diagnostics** - enables Diagnostic mode, which should only be used for advanced troubleshooting.
Security Assessment Wizard

**IMPORTANT:** Before implementing any recommended changes from the Security Assessment Wizard, you should verify them in a test environment before implementing across your printer network.

1. See Figure 13. From the Dashboard, tap **Printer Actions**.
2. Tap **Security Assessment**. Tap **About the Assessment** (3) to see more information (4).
3. Tap **Scan Now** (3) to start the Security Assessment scan.
4. Tap the communication interface (Bluetooth, Wireless, or Local) which you use for normal printer operations (5).

   The Security Assessment wizard starts scanning for risks (6). Once the scan is finished, the **Scan Results** (7) are displayed.
   - ✓ indicates there is no risk.
   - ! indicates a moderate risk that may need to be addressed.
   - ✗ indicates a high-level risk that should be addressed.
   - NA indicates that there is no risk associated because the feature is not in use or enabled on your printer.

5. From the **Scan Results** page, tap on a risk to display the **Risk Details** (8).
6. From the **Scan Results** page, tap **Get Full Report** to have a full report sent to your email address (9).

   Once you enter your email and submit, you will then have the option to select an email client.

**NOTE:** An email account is required to be setup on your device in order to email the security report. The default email application for your mobile device will be used to send the report.

Figure 13  Security Assessment Screens

(1) Dashboard Screen  (2) Printer Actions Screen  (3) Security Assessment
Available Files and Printer Actions

(4) About Screen

Block Unwanted Access and Ensure Your Data and Infrastructure are Protected

As printing devices become more sophisticated, they also become more vulnerable to security breaches.

Our Print Security Assessment allows you to better understand your printer’s security stance. That way, each connection and data exchange can be carefully controlled to ensure that information is protected and available to authorized users only.

Visit zebra.com/PrintSecure

(5) Communication Interface

Choose Communication Interface

Choose the communication interface that you use for remote printing operations (e.g., USB, Bluetooth, Wi-Fi).

Bluetooth

Wireless

Local USB/Parallel/10/100

(6) Scanning for Risks

Scan Now

Scanning for Security Risks

10 Items Scanned

5 Risks Found

4 Critical

View Results

(7) Scan Results

Scan Results

5 Security Risks Found

4 Critical

Applications

3 Risks - 1 Critical

Capture Shared Port

Firmware Version

Sleepting Device

USB Mirror

Zebra Basic Interpreter

Communications

3 Risks - 3 Critical

Get Full Report

(8) Risk Details

Risk Details

Firmware Version

Description

Report Firmware version

Considerations

Zebra recommends updating your printer to the latest firmware from www.zebra.com/support

(9) Email Report

Email Report

Get the Full Report of Your Printer’s Security Risks

Email Address

Submit
This chapter provides information about Device Language Selector and Virtual Device Management in Zebra Printer Setup Utility.

**IMPORTANT:** Depending on your printer model, this application may have limited functionality. Some application features will not be available for the detected printer model. Features that are unavailable will be grayed out or not shown on the menus.

**Introduction**

While the names sound similar because both use the word “device”, device languages and virtual devices are not the same.

A device language is a language that is native to Zebra printers and is factory installed. These languages send commands to the printer to perform specific functions. To select and apply a device language, see Device Language Selector on page 30.

A virtual device is an application which emulates another company’s printer language. Generally, a virtual device includes a subset of their printer commands. Unlike “device languages”, Virtual Devices are not native to Zebra printers and must be installed on printers.

Most virtual device apps are delivered via zip file; contain a small script file and a text file; and can be installed quickly. There are two exceptions:

- Virtual Device-I
- Virtual Device-D

**IMPORTANT:** These virtual devices are complete firmware downloads. These are very large files, will take a substantial amount of time to download and install on the printer, and will reboot your printer twice. These two virtual devices are also mutually exclusive, so only one can be installed on the printer at a time.

To install a virtual device, see Virtual Device Management on page 31.

**Device Language Selector**

Device Language includes native Zebra supported languages (and virtual devices previously loaded) on the printer. Only those languages (or virtual devices) loaded on the printer will be displayed on the Set Device Language screen.

The Device Language Selector permits you to change the device language used to communicate with the Zebra printer. Device Languages change depending on the printer to which you want to send commands. For example, “Line Print” will only appear as a native Device Language for certain mobile printers such as the ZQ210 or the ZQ510 printers, and will not appear as a native Device Language for the ZD410 printer.
Set the Device Language

To set the Device Language, complete these steps.
1. See Figure 14. From the Dashboard, tap **Device Language**.
   The Device Language currently in use is indicated (2).
2. Tap </> **Set Device Language** to make a change.
3. On the **Set Device Language** screen (3), tap the language you wish to use, and then tap **Apply**.

**NOTE:** The currently active device language will be selected by default.

Virtual Device Management

Virtual Devices are on-printer applications that allow Link-OS printers to use legacy languages normally associated with other printer brands. Multiple Virtual Devices (except for Virtual Device-I and Virtual Device-D as noted previously) can be downloaded to a single printer. It is not necessary (or possible) to remove Virtual Devices from printers; users simply choose between command languages as needed.

Virtual Device Management is performed using the Device Language option on the Dashboard. In order to install the Virtual Device, you must download a zip file to your mobile device.

There are two ways to install the virtual device via Zebra Printer Setup Utility:

- Download a zip file to your mobile device, or
- Store and download the zip file from your Cloud storage provider.
Download the Virtual Device Zip File

To download the Virtual Device, complete the following from your computer or your mobile device:

1. Open a web browser and navigate to:
   
   https://www.zebra.com/virtualdevices

2. Locate your printer type in the list of printers, and then tap **Download Now** or Request Information, if support for your printer cannot be found.

3. Fill out the information on the Virtual Device Download Request form.

4. Click **Submit**.

5. Read the End User License Agreement.

6. Click **Accept and Begin Download Now**.
   
   Your browser prompts you to open or save the zip file containing the Virtual Device.

7. Save and store the Virtual Device zip file to your computer or storage location (Box, DropBox, etc) [or Android device if you want to use Zebra Printer Setup Utility application for installing the virtual device].

   The zip file contains the following files:

   - The Virtual Device .NRD (or .ZPL) file to be downloaded to a Zebra printer.
   - Text files (.txt) with the SGD commands to enable and disable the virtual device.
   - A sample test format that can be sent to the printer once the virtual device is enabled.

Access the Virtual Device Zip File

Copy the Virtual Device Zip File to Your Device

Getting a zip file on your mobile device can be accomplished with either of the following methods:

1. Drag and drop with your mobile device connected via USB cable to your computer.

   See Figure 17. Be sure that your mobile device USB setting is **Connected as media device**. (On some mobile devices, you can swipe down from the top of the phone (or tablet) to view notifications.) See Drag and Drop using a USB Connection.

   **Figure 15  Android Notifications**

   ![Android Notifications](image)

2. Use the browser on your mobile device to download the zip file to your device. See Download the Virtual Device Zip File on page 34.
Drag and Drop using a USB Connection

To download using a USB connection, complete these steps.

1. Connect your smartphone to your computer using a USB cable.
2. Open two Windows Explorer windows.
   i. One window should display your mobile device as a drive.
   ii. The other window should display the Downloads folder on your computer.
3. Drag the zip file from the Downloads folder (computer) and drop on the mobile device window.

**NOTE:** Drag the entire zip file. (There is no need to extract or unzip the individual files.)
Do not change the name of the zip file.
Install the Virtual Device

This section will disable the current device language or virtual device, install, and enable the new virtual device all within this single feature. When you install a virtual device, you are sending the .NRD (or .ZPL) file to the printer.

After the files are sent to the printer, the Virtual Device will appear in the Set Device Language screen. When you install the virtual device for the first time, a browser will open and you can select the virtual device zip file.

**IMPORTANT:** Once you have completed a firmware update, or a firmware and virtual device update, you may need to reconnect your mobile device to the printer. You will be prompted to do so if necessary.

To install the virtual device, complete these steps.

1. See Figure 15. From the Dashboard, tap **Device Language** (1).
2. From the Device Language screen, tap **Set Device Language** (2).
   
   If this is the first time you are installing a virtual device, it will not appear in the list.
3. Tap **+ Install Virtual Device** (3).

![Figure 16 Dashboard (1) and Device Languages (2) Screens](image)

4. Navigate to the zip file, tap it, and tap **Install**.

**NOTE:** Do not change the name of the Virtual Device zip file.

Click **Cancel** to exit and return to the Set Device Language screen.

If you already have an active virtual device, you will be prompted to disable it before proceeding.

- Tap **Disable** to disable the Virtual Device.
- Tap **Cancel** to exit and return to the Set Device Language screen.

5. The printer device language will be set to “**Virtual Device - M**” in this example. Now, the printer is ready to install a new virtual device.
NOTE: If you are connected via USB cable and are also installing a firmware-based Virtual Device, specifically, either of the following:

- Virtual Device-I
- Virtual Device-D

You will need to perform an additional step.

- Click OK to close the dialog and to begin downloading the Virtual Device.
- Click Cancel to close the dialog.

After installation of a firmware-based Virtual Device, the additional step required is to enable that Virtual Device.

If required, reconnect the printer and select the Virtual Device in Set Device Language option.

1. After successfully installing a virtual device, you will be prompted to print a test label.

NOTE: The Print Test Label option may not be available if the virtual device was not installed from the device currently being used.

2. Tap Print to print a test label.
   
   Tap Skip to return to the Device Language screen.

NOTE: When you return to the Device Language screen, the Current Device Language displays the specific Virtual Device language enabled for your printer.

IMPORTANT: After enabling a virtual device, the printer reboots, and the application reconnects, and most menu options are disabled.

Figure 17  Dashboard after Virtual Device Installation
This chapter describes the printer and Zebra Printer Setup Utility application screen information available.

**IMPORTANT:** Depending on your printer model, this application may have limited functionality. Some application features will not be available for the detected printer model. Features that are unavailable will be grayed out or not shown on the menus.

**Zebra Printer Setup Utility Application Screens**

This section details the Zebra Printer Setup Utility application screens. Additional items include Deselect Printer, Zebra Assist, Settings, and About. You may manage your printers via smartphone or tablet. You may view Zebra Printer Setup Utility screens in either portrait or landscape orientation on your tablet only. (Your smartphone displays screens in portrait only.)

Once the application is downloaded, the application opens to the Dashboard screen. Since this is the first time you have used the application, there is no printer selected. See Printer Discovery Methods on page 10 to establish a connection to a printer.

**Figure 17** Dashboard (First Time Use)
Specific printer information is available by touching the photo of the printer or \( \text{(1)} \) on the Dashboard. There are three tabs providing information about the printer and are listed below in Figure 18.

- **General tab (2):** Displays the model, serial number, firmware version of the printer, battery status, and Advanced Information (5).
- **Printing tab (3):** Displays the print status, mode, speed, darkness, media type and dimensions, odometer information, and battery information. You may need to scroll down to see the lower section of the screen.
- **Connectivity tab (4):** Displays information about the connectivity method (e.g., Bluetooth, Wireless, Wired/Ethernet, USB), MAC Address, IP Address, and Region. You may need to scroll down to see the lower section of the screen. Only information applicable to the current connectivity method is shown. In the examples below, the printer is connected via Bluetooth.
- **Advanced Information (5):** Displays additional printer and battery information.

**Figure 18  Printer Information**
Other Dashboard Menu Items

At the bottom of the Dashboard are three miscellaneous items. These include:

- Zebra Assist
- Settings
- About

Zebra Assist

Zebra Assist automates the process of collecting your printer's configuration and attaching it to an email ready to send to Zebra Tech support to assist with troubleshooting.

From this screen, you may tap:

- To visit zebra.com
- To send an email to Zebra Support (For more details, see Send Settings File to Zebra Assist on page 40.)
- Review a list of previous emails you sent to Zebra Support

![Zebra Assist Screen](image)

Settings

From the Settings page (1), you can change various items such as:

- **Unit of measurement**: set up inches, centimeters, and millimeters
- **Warn on Connect**: set notifications for when some features are not available to connected printer.
- **Anonymous error reporting**: select to send, or not send, error reports to Zebra. The default is checked/enabled; meaning error reports will automatically be sent. To opt out of sending the reports, uncheck the box (2).

**NOTE:** Zebra recognizes that the security of your personal information is an important part of our partnership and we are not in the business of selling or making it available to others. Zebra maintains its commitment to safeguard and protect the confidentiality, integrity, and availability of information, which is stored, processed, and/or transacted through our products. We also collect data in a form that does not, on its own, permit direct association with specific customers or corporations. We may collect, use, transfer, and disclose non-personal information for any purpose. We conduct our business in compliance with applicable laws on data privacy protection and data security.
About

The About screen provides various information about the application version, copyright information, open source licensing, and Zebra's privacy policy.

Figure 21  About Screen
Capture and Send Settings File

This chapter describes how to capture and send a settings file.

IMPORTANT: Depending on your printer model, this application may have limited functionality. Some application features will not be available for the detected printer model. Features that are unavailable will be grayed out or not shown on the menus.

Capture or Save Settings to a File

With Zebra Printer Setup Utility, you can save the printer settings to a file. There are three menus where you can save your settings to a file:

- Connectivity Settings
- Media Settings
- Print Quality

To change your Media Settings, see Media Settings on page 19. To save your settings, complete these steps.

1. From the Dashboard, tap Media Settings.
2. Tap Next until you get to the Apply Settings (1) screen.
3. Tap the checkbox Save settings to file, and then tap Apply.

Figure 22  Media Settings Screens

(4) Apply Settings Screen  (2) Save Settings Checkbox

4. Follow the prompts to set up your Saved file location.
5. Tap **Apply** to apply your settings to the printer.
   - Tap **Cancel** to quit without saving your settings.
   - Tap **Back** to return to the previous menu screen.

**Send Settings File to a Printer**

Once you have saved your settings to a file, you may send your settings file to your printer.

**To send the settings file to a printer, complete these steps.**

1. From the Dashboard, tap **Available Files**.
2. Tap the file you wish to send.

   **NOTE:** The settings files are named by appending a number to the end of the file name. (Default increment is 1; the range is 1-9999.)

3. Tap **Send To Printer** to send the file or **Close** to quit.

   When the file has been successfully sent, an acknowledgment will display.

**Send Settings File to Zebra Assist**

At times, you may want to send your settings file to Zebra Assist. They can help troubleshoot issues with a printer.

**To send a settings file to Zebra Assist, complete these steps.**

1. From the Dashboard, tap **Zebra Assist**.
2. Tap **Email Zebra Support** on the next screen.
3. To select your issue, tap in the issue field to show all of the choices (2). Select the issue you wish to share.
4. Add a Description, if desired.
5. To add an attachment:
   - Tap § to add a file.
   - Tap $ to add a picture.
   - Tap i add a printer configuration file.

   **IMPORTANT:** When sending file attachments to Zebra Assist, file sizes should not exceed 25MB due to email server limits. 10MB or less is recommended. If necessary share files using a Cloud storage service and include the link in your message.
6. Once you have added all information you have to share, tap Create Email.

**NOTE:** Attachments to email will be compressed so size of attachments will change from the original stored size

7. If prompted, select the Share with method and Just Once or Always.

   An email opens with your selected settings file attached.

**NOTE:** The default email application for your mobile device will be used to send the report.

8. Tap the Send icon the same as any email.

9. Tap Done.

**Figure 24**  Support Email Screen

After you tap Done, the Zebra Assist main screen appears.