

ZDownloader



ZEBRA

User Guide

2025/05/21

ZEBRA and the stylized Zebra head are trademarks of Zebra Technologies Corporation, registered in many jurisdictions worldwide. All other trademarks are the property of their respective owners. ©2025 Zebra Technologies Corporation and/or its affiliates. All rights reserved.

Information in this document is subject to change without notice. The software described in this document is furnished under a license agreement or nondisclosure agreement. The software may be used or copied only in accordance with the terms of those agreements.

For further information regarding legal and proprietary statements, please go to:

SOFTWARE: zebra.com/informationpolicy.

COPYRIGHTS: zebra.com/copyright.

PATENTS: ip.zebra.com.

WARRANTY: zebra.com/warranty.

END USER LICENSE AGREEMENT: zebra.com/eula.

Terms of Use

Proprietary Statement

This manual contains proprietary information of Zebra Technologies Corporation and its subsidiaries ("Zebra Technologies"). It is intended solely for the information and use of parties operating and maintaining the equipment described herein. Such proprietary information may not be used, reproduced, or disclosed to any other parties for any other purpose without the express, written permission of Zebra Technologies.

Product Improvements

Continuous improvement of products is a policy of Zebra Technologies. All specifications and designs are subject to change without notice.

Liability Disclaimer

Zebra Technologies takes steps to ensure that its published Engineering specifications and manuals are correct; however, errors do occur. Zebra Technologies reserves the right to correct any such errors and disclaims liability resulting therefrom.

Limitation of Liability

In no event shall Zebra Technologies or anyone else involved in the creation, production, or delivery of the accompanying product (including hardware and software) be liable for any damages whatsoever (including, without limitation, consequential damages including loss of business profits, business interruption, or loss of business information) arising out of the use of, the results of use of, or inability to use such product, even if Zebra Technologies has been advised of the possibility of such damages. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Contents

Introduction.....	5
Adding a Printer.....	6
Auto-Detecting Printers.....	6
Manually Adding Printers.....	6
Adding a Serial Printer.....	7
Adding a Parallel Printer.....	9
Adding a Network Printer.....	10
Adding a USB Printer.....	11
Modifying Printers in the Printer List.....	12
Deleting Printers from the Printer List.....	13
Printing Test Pages.....	13
Saving Printer Settings.....	14
Restoring Printer Settings from a File.....	14
Updating the Printer Firmware.....	14
Accelerating Printer Firmware Update.....	16
Licensed Content Management.....	17
Downloading Licensed Content Files to Printers.....	17
License Manager.....	18
Opening the License Manager.....	18
Configuring a Product License.....	20
Clearing a License.....	22

Configuring the Proxy Settings.....	24
-------------------------------------	----

Introduction

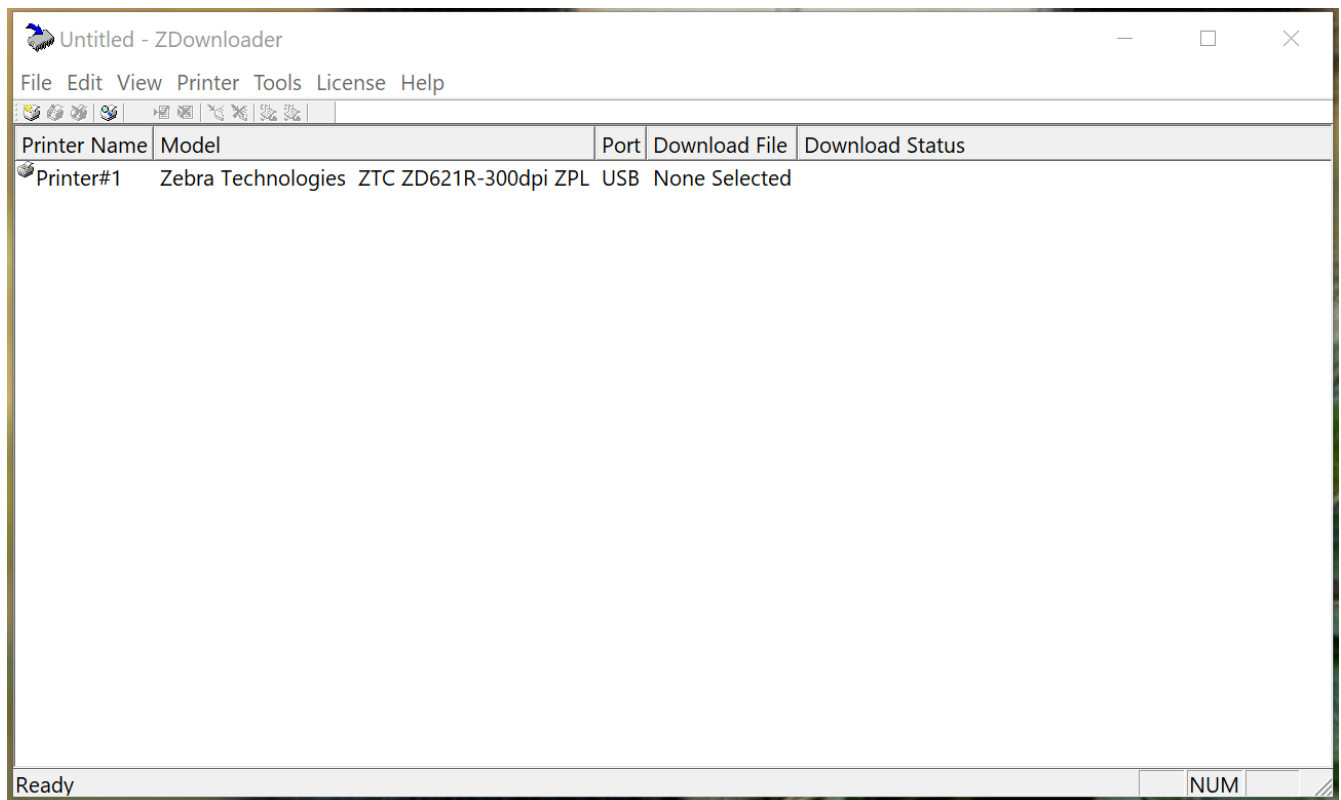
ZDownloader simplifies updating Zebra Printer firmware and managing licensed content provided by Zebra Technologies.

This application supports Zebra printers connected by serial, parallel, USB, and IP Ethernet networks.

ZDownloader is supported on the following operating systems:

- 32-bit Windows 10
- 32-bit Windows 11
- 64-bit Windows 10
- 64-bit Windows 11

Figure 1 ZDownloader Application



Adding a Printer


You can add printers to Zdownloader automatically or manually depending on your configuration.

Auto-Detecting Printers

Zdownloader detects and configures USB and IP-Ethernet printers automatically.

Your printer must connect via a USB or IP-Ethernet interface.

Begin auto-detecting printers by either:

- Clicking  on the toolbar.
- Selecting **Printer** > **Auto-Detect**.

The Auto-Detect dialogue box appears.



The detected printers are added to the printer list.




NOTE: The application broadcasts a UDP packet onto the network to detect Ethernet-connected printers. The discovery process uses UDP port number 4201. Some networks filter out UDP packets. This means it may be impossible to detect all printers on your network. See your network administrator for more information. If you cannot Auto-Detect your network printers, refer to [Manually Adding Printers](#).

Manually Adding Printers

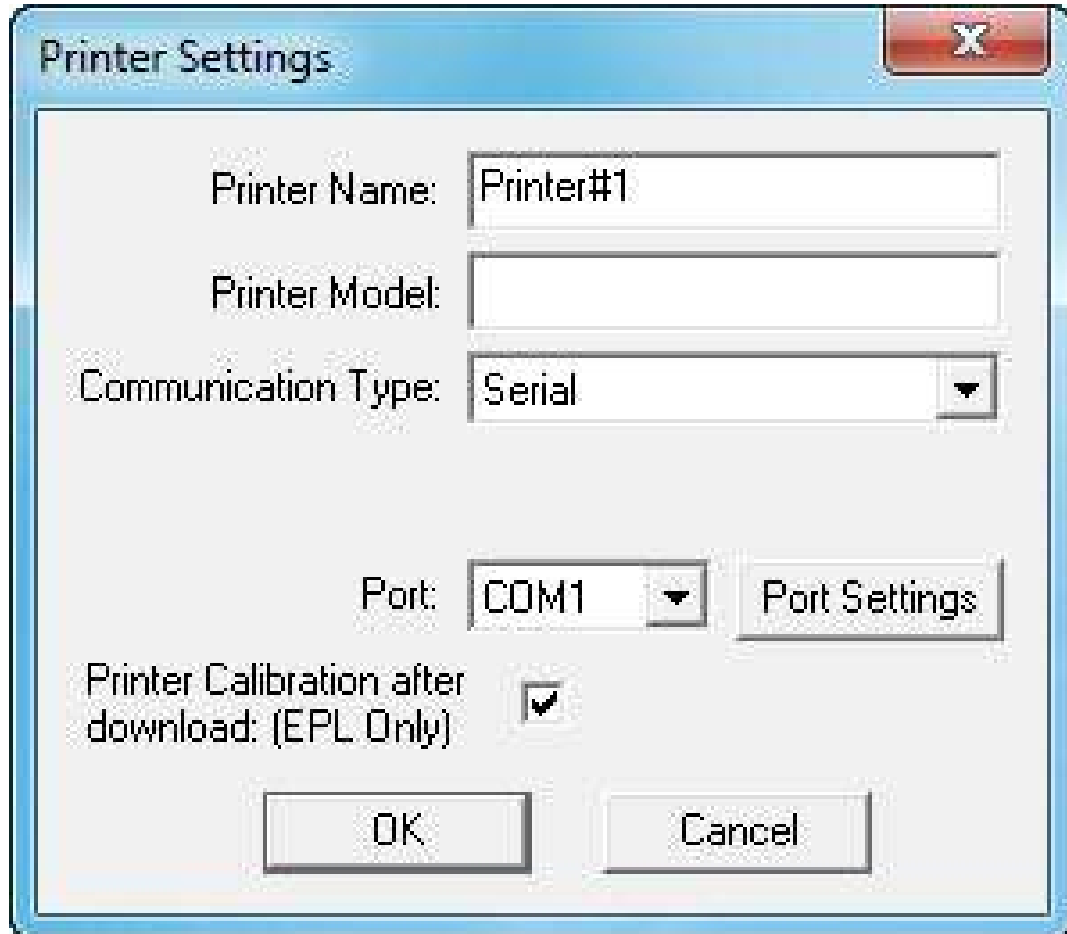
Zdownloader allows you to add printers with a variety of communication types.

Adding a Serial Printer

You can manually add a Serial Printer.

1. Click  on the toolbar.
2. Click **Printer > Add**.

The **Printer Settings** displays.



The **Printer Settings** dialog box is shown. It has a title bar with a close button (X). The dialog contains the following fields and controls:

- Printer Name:** A text box containing "Printer#1".
- Printer Model:** An empty text box.
- Communication Type:** A drop-down menu with "Serial" selected.
- Port:** A drop-down menu with "COM1" selected.
- Port Settings:** A button next to the Port drop-down.
- Printer Calibration after download: (EPL Only):** A checkbox that is checked.
- OK** and **Cancel** buttons at the bottom.

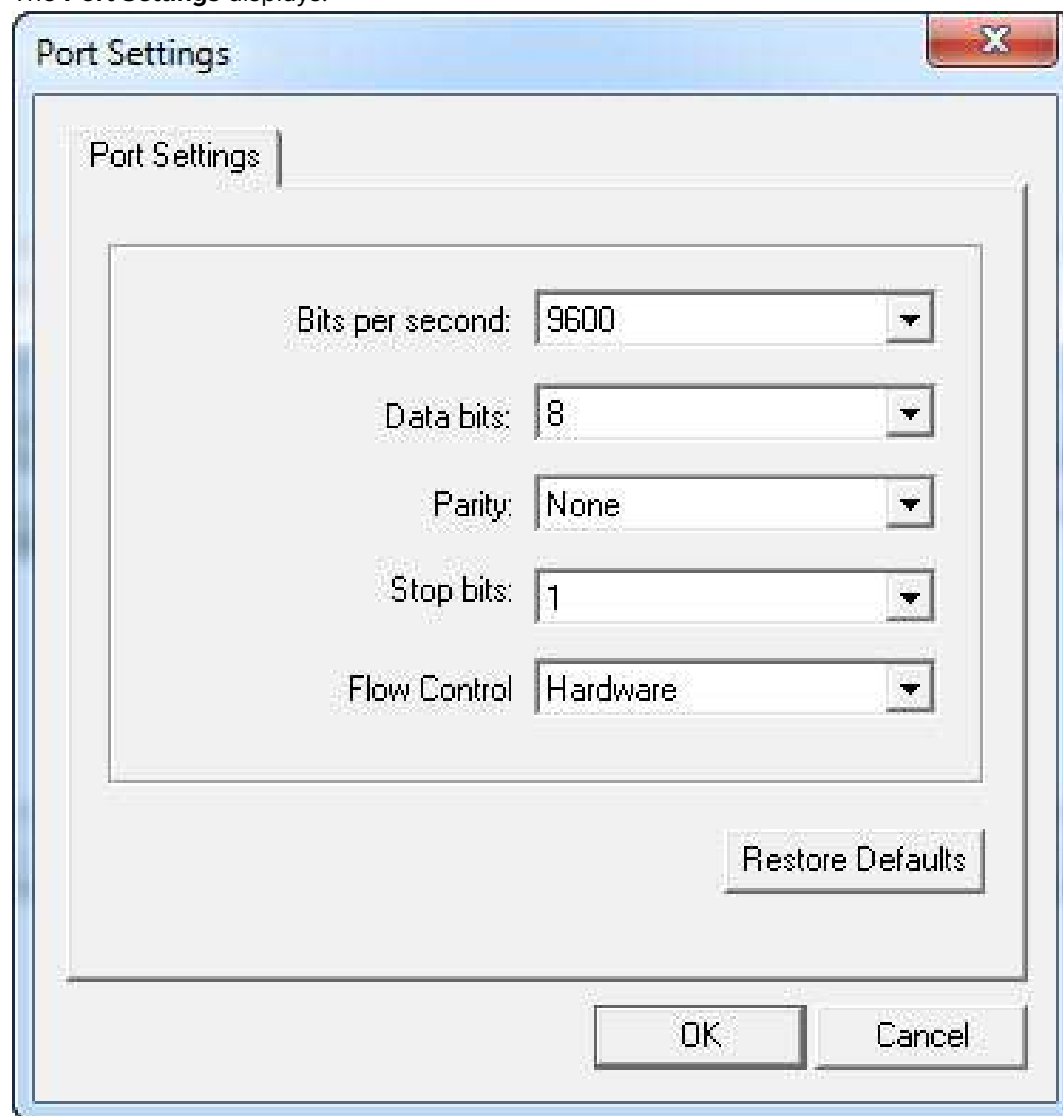
3. In the **Printer Name** text box, enter a name for the printer.
4. In the **Printer Model** text box, enter the model number of the printer.
5. In the **Communication Type** drop-down, select **Serial**.
6. In the **Port** drop-down, select the serial port to which the printer is connected.



NOTE: You can view the printer's serial port settings by performing an AutoSense on the printer and reading the Dump Mode status labels' serial configuration data. Refer to the printer's [User Guide](#) for details. Example: 9600 , N , 8 , 1 which matches the Port Settings shown in step 7.

7. Click **Port Settings**.

The **Port Settings** displays.



8. Enter the configuration data of the serial port.
9. Click **OK**.
10. In **Printer Settings**, click **OK**.

The serial printer is added to the printer list.

See Also


[Adding a Network Printer](#)

[Adding a USB Printer](#)

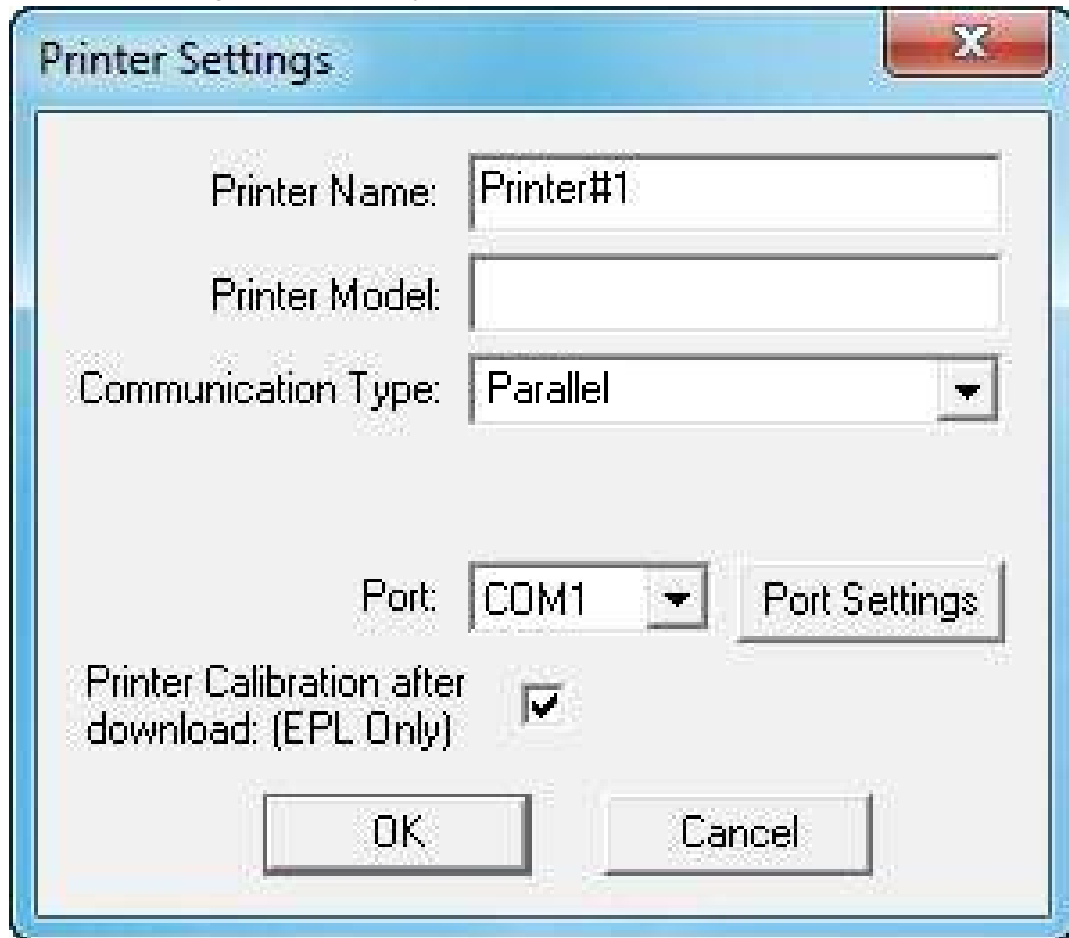
[Adding a Parallel Printer](#)

Adding a Parallel Printer

You can manually add a parallel printer.

1. Click  on the toolbar.
2. Choose: **Printer > Add**.

The Printer Settings window displays.



The image shows a 'Printer Settings' dialog box with a blue title bar and a red close button. It contains several input fields and a checkbox. The 'Printer Name' field is filled with 'Printer#1'. The 'Printer Model' field is empty. The 'Communication Type' dropdown menu is set to 'Parallel'. The 'Port' dropdown menu is set to 'COM1', and there is a 'Port Settings' button next to it. The 'Printer Calibration after download: (EPL Only)' checkbox is checked. At the bottom are 'OK' and 'Cancel' buttons.

Printer Name:	Printer#1	
Printer Model:		
Communication Type:	Parallel	
Port:	COM1	Port Settings
Printer Calibration after download: (EPL Only)	<input checked="" type="checkbox"/>	
OK		Cancel

3. In the **Printer Name** text box, enter a name for the printer.
4. In the **Printer Model** text box, enter the model number of the printer.
5. From the **Communication Type** drop-down menu, select Parallel.
6. From the **Port** drop-down menu, select the port to which the printer is connected.
7. Click **OK**.

The printer is displayed in the Printer List.

See Also

[Adding a Network Printer](#)

[Adding a USB Printer](#)

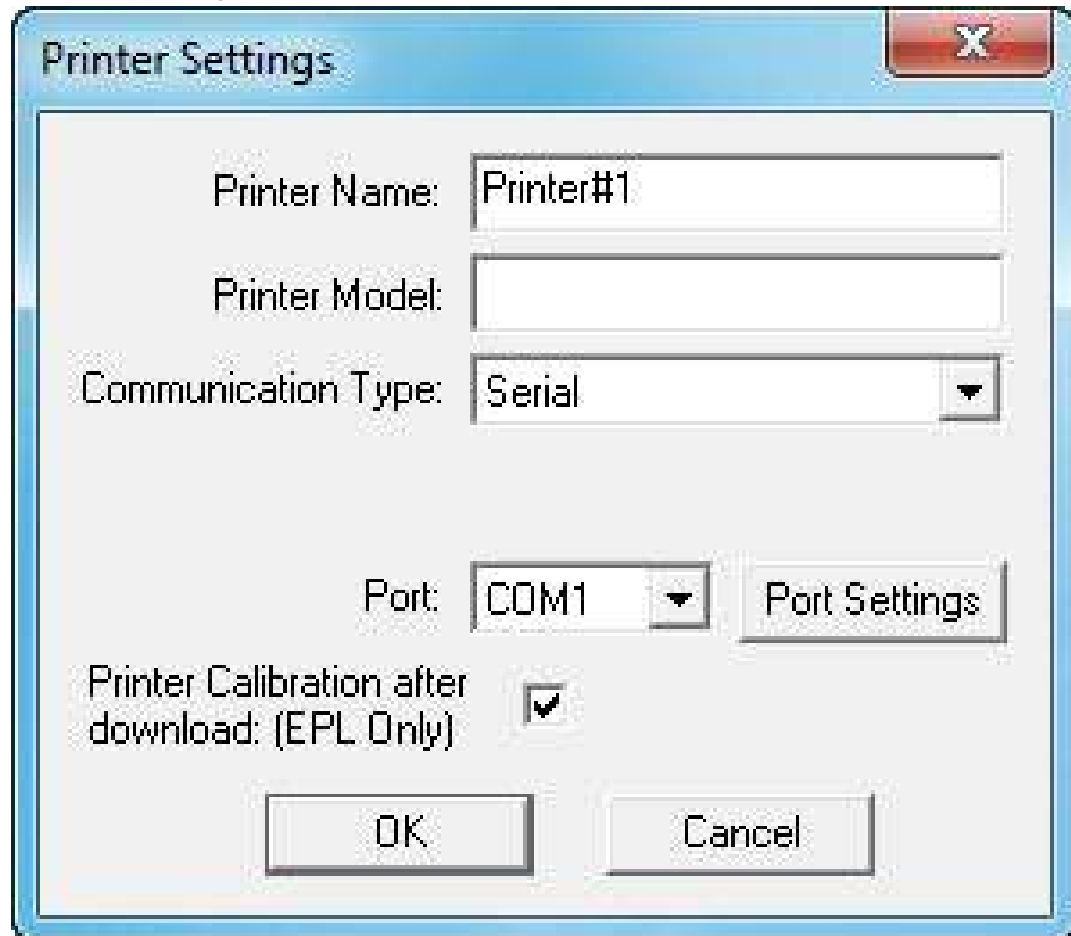
[Adding a Serial Printer](#)

Adding a Network Printer

You can manually add an Ethernet printer.

1. Click  on the toolbar.
2. Select **Printer > Add**.

The Printer Settings window appears.



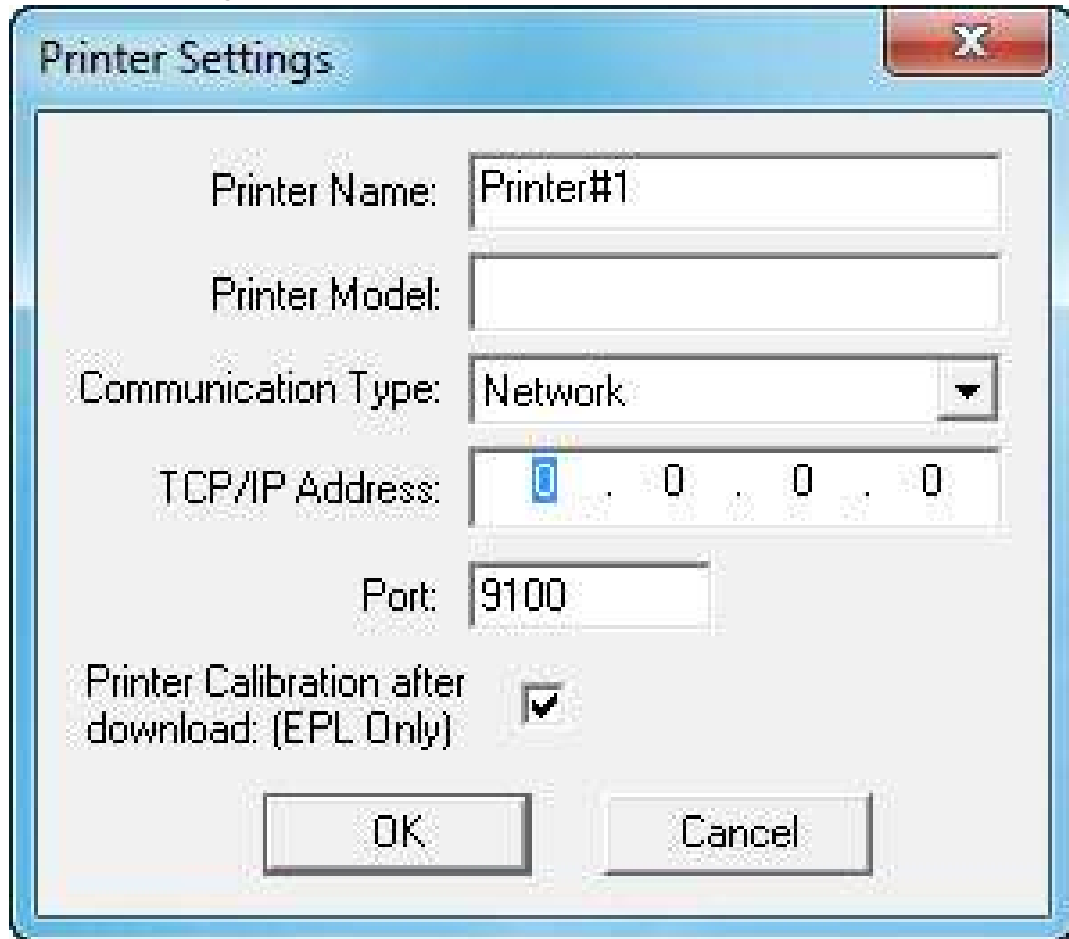
The image shows a 'Printer Settings' dialog box with a blue title bar and a red close button. It contains several input fields and checkboxes. The 'Printer Name' field is filled with 'Printer#1'. The 'Printer Model' field is empty. The 'Communication Type' is set to 'Serial' in a dropdown menu. The 'Port' is set to 'COM1' in a dropdown menu, with a 'Port Settings' button next to it. There is a checkbox for 'Printer Calibration after download: (EPL Only)' which is checked. At the bottom are 'OK' and 'Cancel' buttons.

Printer Name:	Printer#1	
Printer Model:		
Communication Type:	Serial	
Port:	COM1	Port Settings
Printer Calibration after download: (EPL Only)	<input checked="" type="checkbox"/>	
OK Cancel		

3. In the **Printer Name** text box, enter a name for the printer.
4. In the **Printer Model** text box, enter the model number of the printer.

5. From the **Communication Type** drop-down menu, select Network.

The **Printer Settings** window updates.



6. In the **TCP/IP Address** text box, enter the TCP/IP address of the printer.

7. In the **Port** text box, enter the port number of the printer.



NOTE: Press the printer's networking configuration status button, located next to the Ethernet interface on the printer or the PrintServer Ethernet adapter, to print a status label.

8. Click **OK**.

The printer is added to the printer list.

See Also

[Adding a USB Printer](#)

[Adding a Serial Printer](#)

[Adding a Parallel Printer](#)

Adding a USB Printer

You can add a printer connected via USB by using Auto-Detect.

- USB printers can only be added by using [Auto-Detect](#).

- All printers connected via USB have the list designation of USB.
- The program can support as many USB printers as the computer can.
- Computers can typically support up to 255 USB devices.

See Also


[Adding a Network Printer](#)

[Adding a Serial Printer](#)

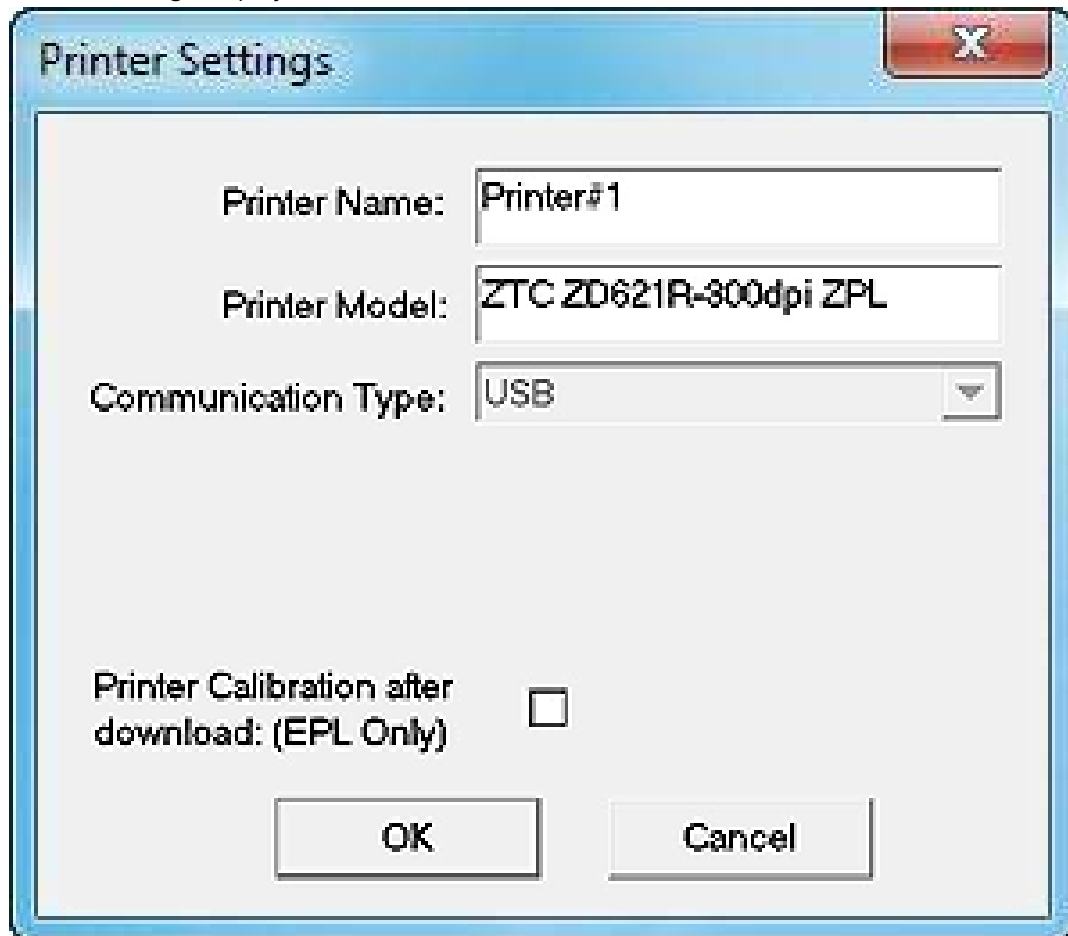
[Adding a Parallel Printer](#)

Modifying Printers in the Printer List

Zdownloader allows you to modify printers in the Printer List.

1. Select a printer from the list.
2. Open **Printer Settings** in one of three ways:
 - Click  on the toolbar.
 - Select **Printer > Modify**.
 - **Right-click** on the printer in the list and select **Modify Printer**.

Printer Settings displays.




The **Printer Settings** dialog box is shown with a blue title bar and a red close button. It contains three input fields: **Printer Name:** with the text "Printer#1", **Printer Model:** with the text "ZTC ZD621R-300dpi ZPL", and **Communication Type:** with a dropdown menu showing "USB". At the bottom, there is a checkbox labeled "Printer Calibration after download: (EPL Only)" which is currently unchecked. Below the checkbox are two buttons: "OK" and "Cancel".

3. Configure the printer settings. Refer to [Adding a Printer](#)
4. Select **Print Configuration Label after Download (EPL Only)** checkbox to cause the printer to calibrate the sensor and print a configuration label. This ensures the media sensor is calibrated correctly, as a firmware download will overwrite existing values.
5. Click **OK**.

The printer settings are updated.

Deleting Printers from the Printer List



Zdownloader is capable of removing previously added printers.

1. Select the printer to be deleted from the Printer List.
2. Delete a printer from the Printer List with one of the following methods:
 - Click  on the toolbar.
 - Select **Printer** > **Delete**.
 - **Right-click** on the printer to be deleted and select **Delete Printer(s)**.

The printer is removed from the Printer List.

Printing Test Pages

Zdownloader provides a variety of ways to print a test page.

- Click  for EPL test page.
- Click  for ZPL test page.
- Select the desired printer and press the **Print Test Page** toolbar button.
- Select **Printer** > **Print EPL Test Page**.
- Select **Printer** > **Print ZPL Test Page**.
- **Right-click** on the selected printers and select **Print EPL Test Page**.
- **Right-click** on the selected printers and select **Print ZPL Test Page**.

Saving Printer Settings

Zdownloader is capable of saving settings to a file.

1. Select **File > Save Printer Settings**.
2. Select a location for the Printer Settings file.
3. Enter a name for the settings file.



NOTE: Printer settings files are stored as .zps.

4. Select **Save**.

The printer settings are saved to a file.

Restoring Printer Settings from a File

Zdownloader is capable of restoring printer settings from a file.



NOTE: Restoring printer settings from a file erases printers currently on the Printer List.

1. Select **File > Load Printer Settings File**.
2. Locate the .zps file.
3. Select **Open**.

The saved printers display in the Printer List.

Updating the Printer Firmware

Zdownloader can assign and download firmware to each printer.


1. Select the printer from the Printer List.



TIP: Hold **SHIFT** down to select a range of printers. Hold **CTRL** to select individual printers.

Saving Printer Settings

2. Choose one:

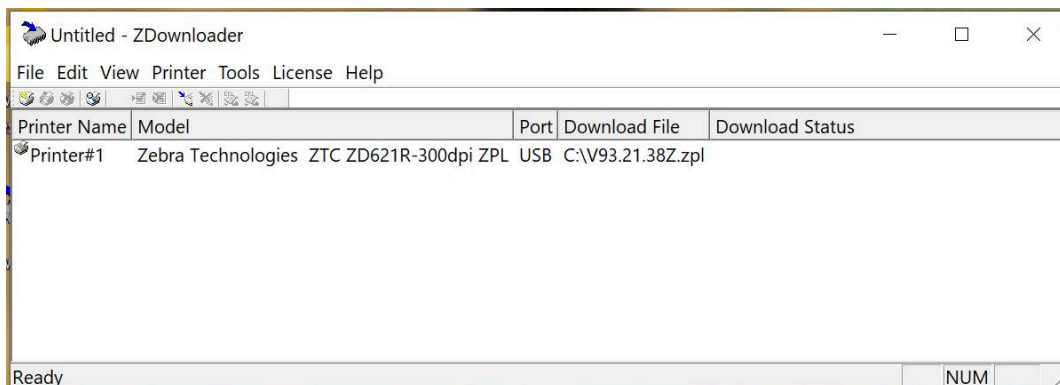
- Click  on the toolbar.
- Select **File > Select File**.
- **Right-click** the selected printer and select **Select File**.



NOTE: Printers that are present in the Printer List but do not have a firmware file are ignored when downloading starts.


3. Navigate to the file to be downloaded.

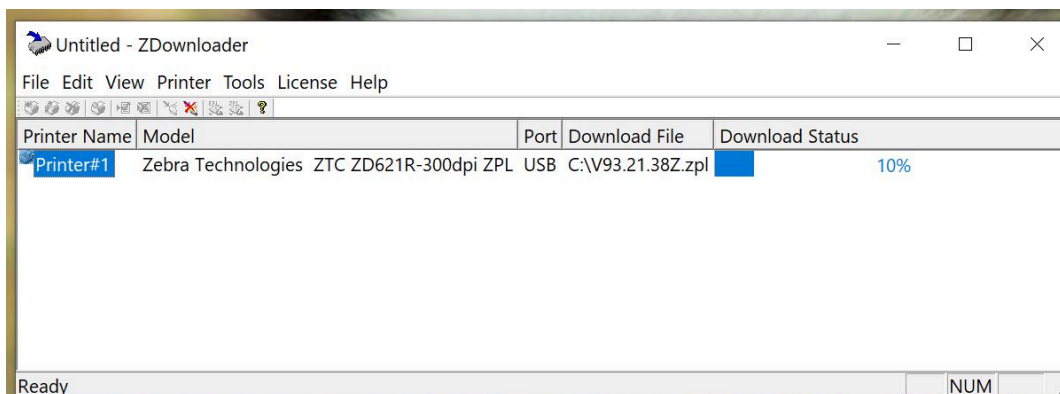
4. Select **Open**.



The file is shown under the **Download File** column.

5. Download the printer firmware.

- To download firmware to all printers, click  on the toolbar.
- To download firmware to specific printers, select the printer and select **Printer > Download to Selected**.



The progress of each printer displays in the **Download Status** column.

The  toolbar icon and the **Printer > Cancel Download** menu option is now available if the download must be canceled.

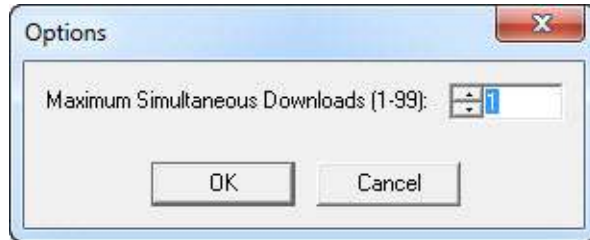
Accelerating Printer Firmware Update

Zdownloader is capable of updating several printers simultaneously.

Zdownloader downloads one update at a time by default; you can increase this number in order to reduce overall update time.

1. Select **Tools > Options**.

The Options window appears.



2. Increase or decrease the **Maximum Simultaneous Downloads** counter.



NOTE: Some computers may slow down as the number of simultaneous downloads increases.

Zdownloader is now capable of downloading several printer updates simultaneously.

Licensed Content Management

Licensed Content files are used in specific circumstances.

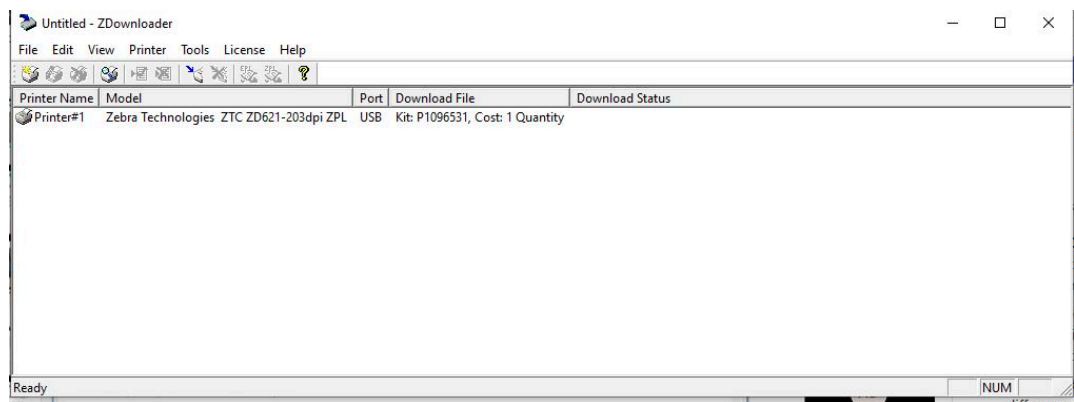
- Zebra Technologies provides Licensed Content files for content that may require tracking or regulation, such as special firmware or licensed fonts.
- Licensed Content files use the file extension .dss.
- A Licensed Content file may be downloaded from Zebra.com/support or received from your Zebra Account Manager.

Downloading Licensed Content Files to Printers

Licensed Content files are downloaded to printers using the same method as firmware.

You must configure the license associated with the Licensed Content files prior to downloading to the printer. Follow the steps for [Configuring a Product License](#) on page 20 to configure Licensed Content Files.

1. Configure the printers. Refer to [Auto-Detecting Printers](#).
2. Select the Licensed Content file in one of the following ways:



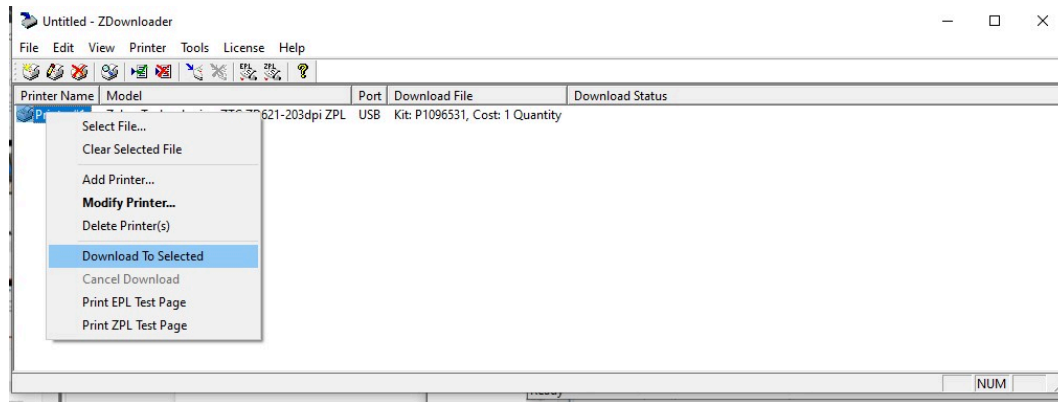
- Select  on the toolbar.
- Select **File > Select File**.

3. **Right-click** the Licensed Content file.



NOTE: The Licensed Content file has a .DSS extension and may be downloaded from Zebra.com/support or received from your Zebra Account Manager.

4. Select **Download to Selected**.



NOTE: If sending firmware, you may have to wait another minute for the printer to fully load after sending the file. Wait until the printer's LED light remains green for more than 5 seconds or the primary menu is shown on the screen before using it.

The Licensed Content file is downloaded to the printer.

Repeat this process to utilize additional license uses.

License Manager

Zdownloader contains a utility for managing installed licenses.

The **License Manager** simplifies updating Zebra Printer firmware and managing licensed content provided by Zebra Technologies. With the License Manager, you can:

- Check the status of a license using the Dashboard screen.
- Configure a license via the internet using the Configure screen.
- Clear a license via the internet using the Configure screen.
- Configure a proxy server using the Settings screen.
- Access License Manager version details from the info screen.

Opening the License Manager

Access the License Manager from the Zdownloader interface.

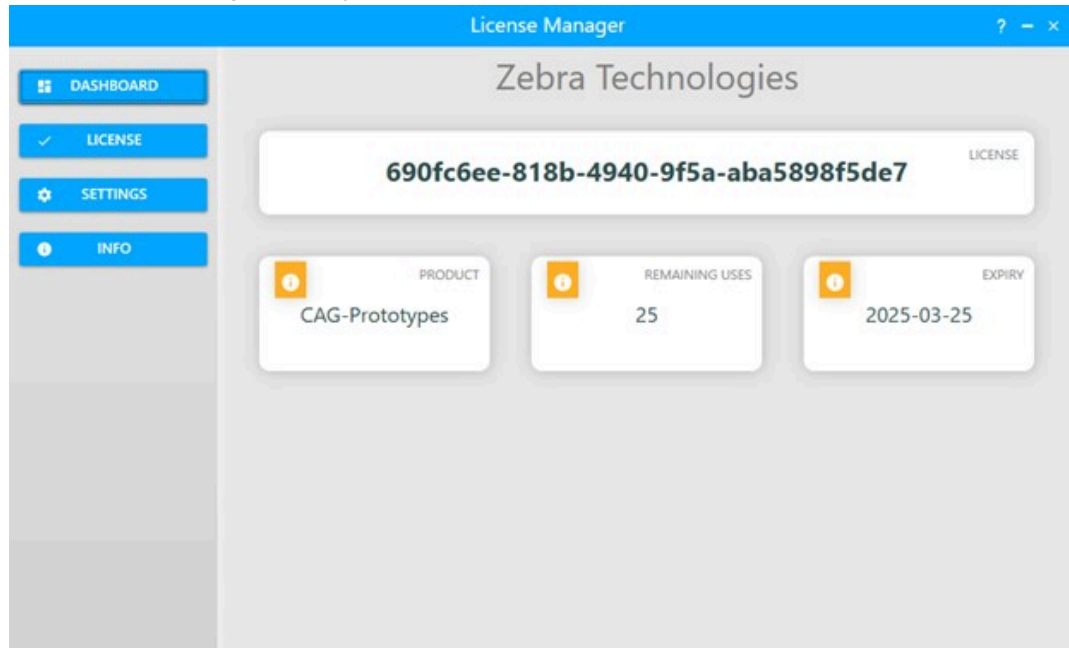


NOTE: Your computer must have access to the Internet to configure or clear licenses. If you connect to the Internet through a proxy server, configure the proxy server via the Settings screen before configuring or clearing licenses. Refer to [Configuring the Proxy Settings](#) on page 24.

1. Launch Zdownloader.

2. Select **License** > **Launch License Manager**.

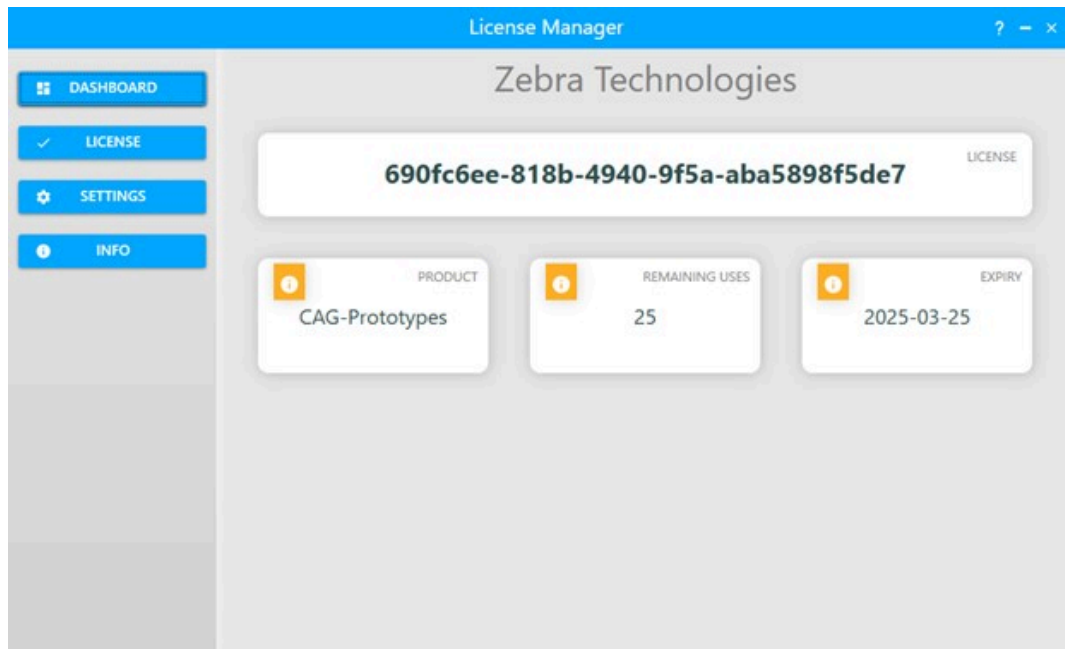
The **License Manager** displays.



License Status

The Dashboard screen displays the license status of active licenses. If you do not have any active licenses, the dashboard will indicate N/A. For the active license code, depending on the mode, the dashboard provides the following information:

- Product type
- Remaining uses
- Expiry date



Configuring a Product License

Licenses must be entered and configured in License Manager.



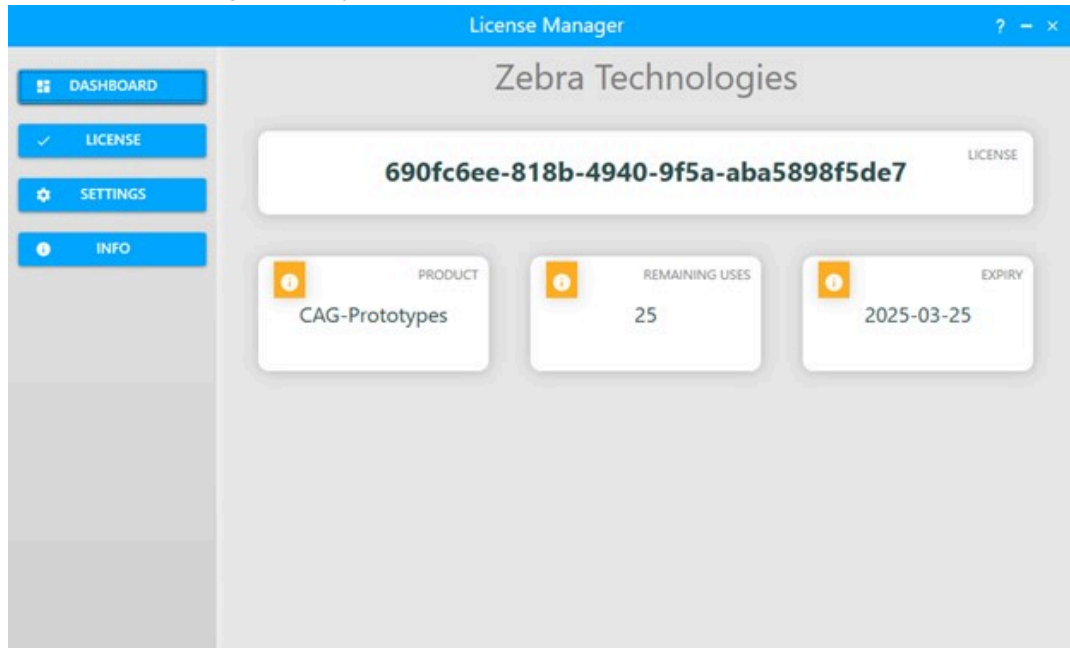
NOTE: Your computer must have access to the Internet to configure or clear licenses. If you connect to the Internet through a proxy server, configure the proxy server via the Settings screen before configuring or clearing licenses. Refer to [Configuring the Proxy Settings](#) on page 24.



NOTE: A license must be obtained from the Zebra Custom Solutions (CAG) team.

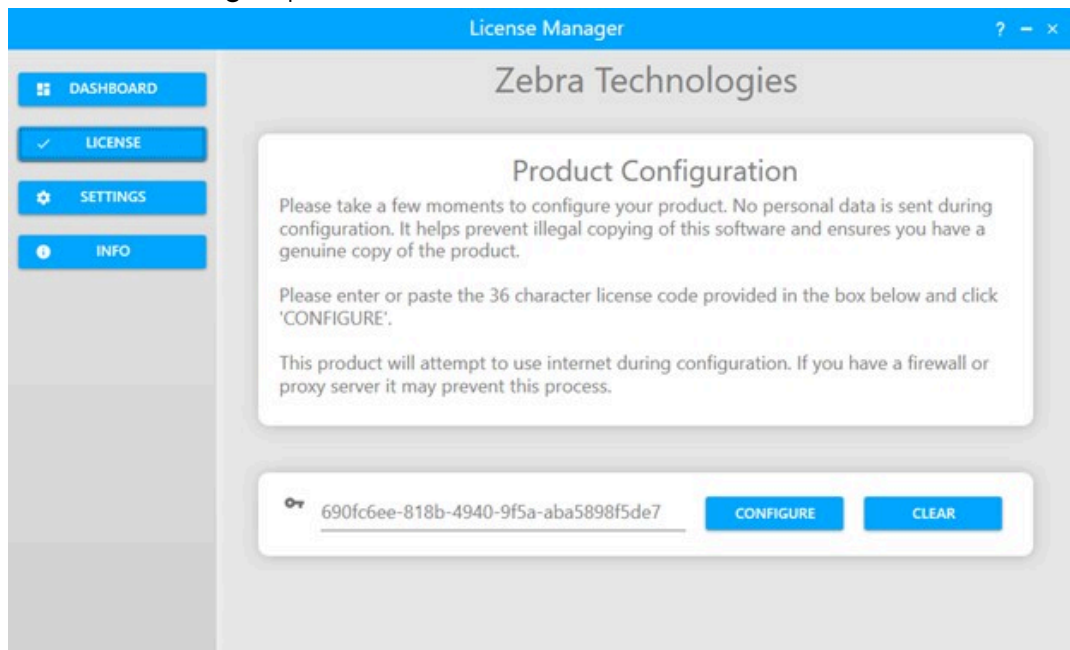
1. Select **License** > **Launch License Manager**.


The **License Manager** displays.



2. Click **License**.

The **License Manager** updates.



3. In the  field, enter the license number.
4. Click **Configure**.

A message displays indicating the configuration was successful.

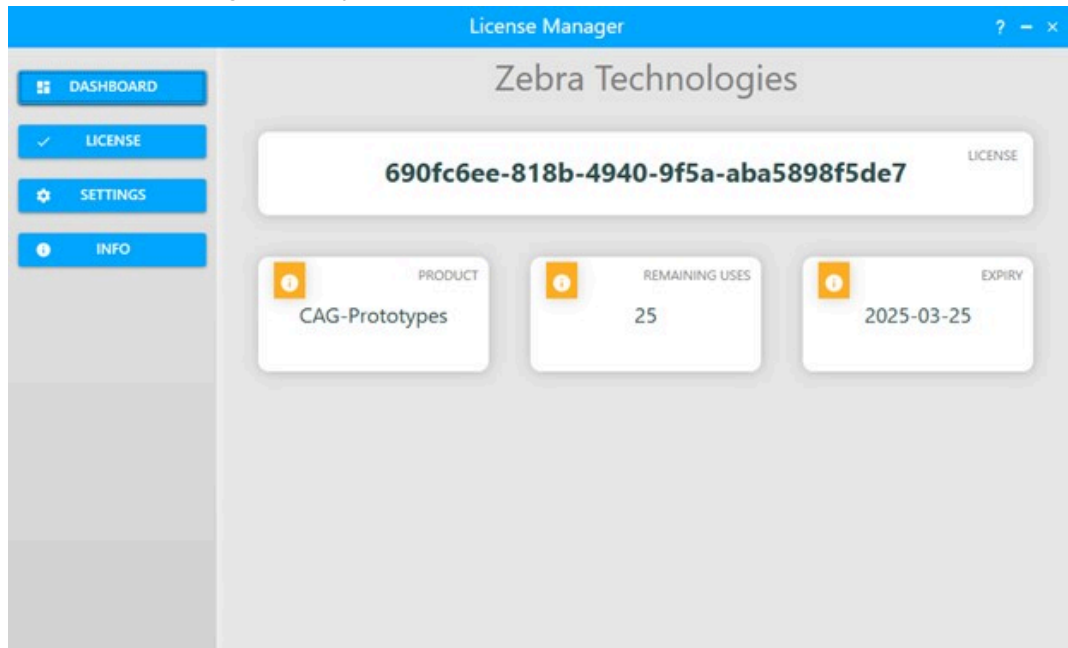
Clearing a License

Clearing a license allows the license to be moved to a different computer.

- The computer must be connected to the internet.
- If connecting to the internet through a proxy server, configure the proxy server before configuring the license code. Refer to [Configuring the Proxy Settings](#) on page 24.

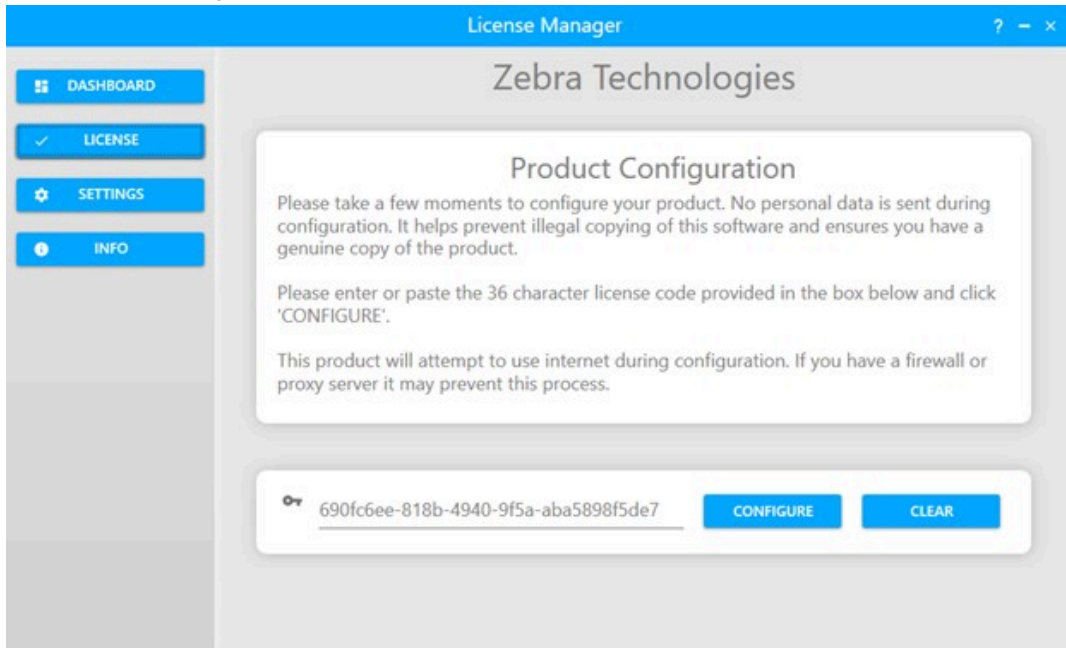
1. Select License > Launch License Manager.

The **License Manager** displays.



2. Click **License**

The product configuration interface opens.



The screenshot shows the 'License Manager' window with a blue header. On the left is a sidebar with four buttons: 'DASHBOARD', 'LICENSE' (which is highlighted with a checkmark icon), 'SETTINGS', and 'INFO'. The main area is titled 'Zebra Technologies' and contains a 'Product Configuration' section. This section includes instructional text about configuration and a 36-character license code input field. The license code shown is '690fc6ee-818b-4940-9f5a-aba5898f5de7'. To the right of the input field are two buttons: 'CONFIGURE' and 'CLEAR'.

3. Enter the License in the field.

4. Click **Clear**.

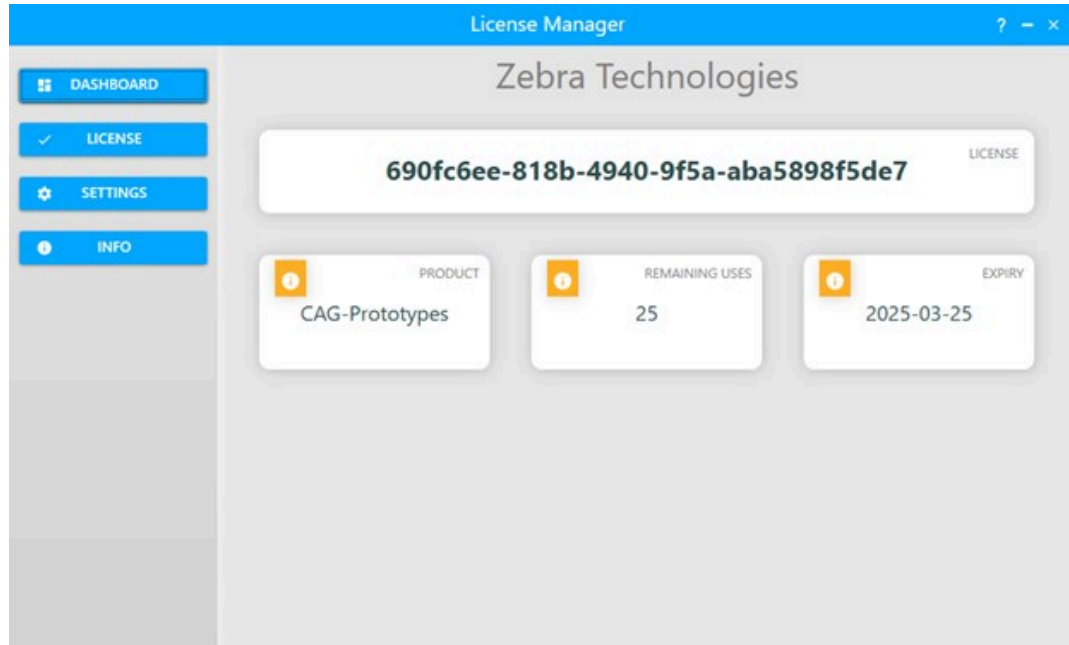
The license is deactivated and may be used on a different computer.

Configuring the Proxy Settings

The License Manager allows configuration of proxy server settings.

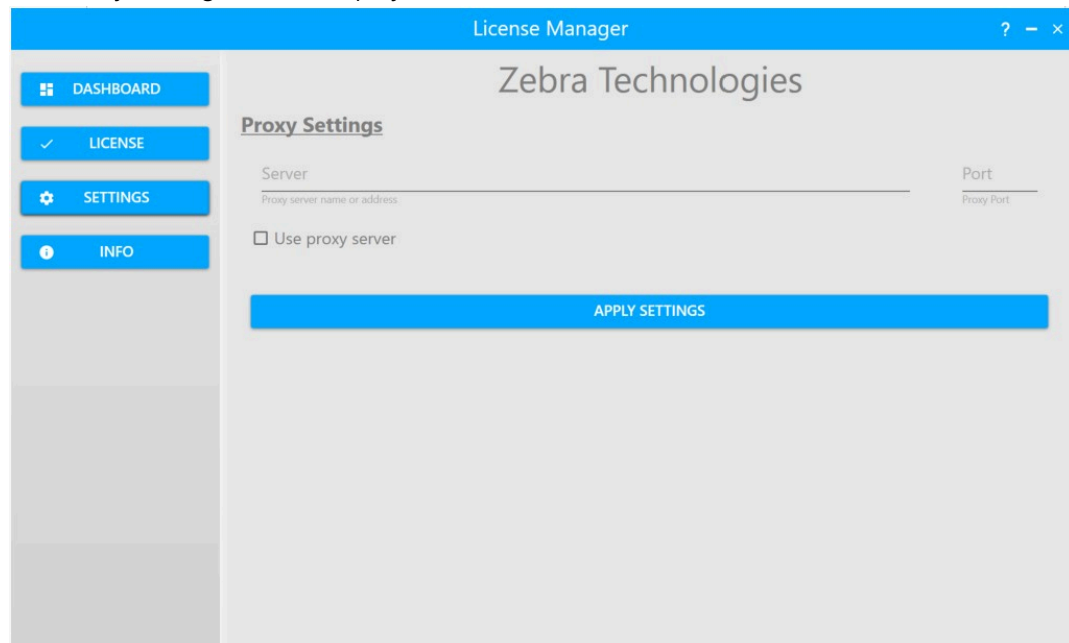
1. Select **License** > **Launch License Manager**.

The **License Manager** displays.



2. Click **Settings**.

The Proxy Settings screen displays.



3. In the **Server** text box, enter the server address.
4. In the **Port** text box, enter the port number.

5. Enable **Use proxy server** checkbox.
6. Click **APPLY SETTINGS**.

