LAUNCHMETRICS

# Thermal label printing hardware compatibility testing for non-officially supported printers

**Who is this document for:**

IT professionals within a customer's organization -or- External printer consultants on behalf of the customer.

**Purpose of this document:**

Provide instructions on how to test compatibility of a non-officially supported thermal printer

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## Introduction

Most of today's available web browsers have a very limited printing implementation, mostly focused around printing web pages or basic templates. The implementation is so limited that adjustments of the selected printer, page size, paper orientation, quantity, scaling and margins are not even implemented as persistent settings across different print jobs - making the process hard to streamline.

To overcome these problems, we have pursued a solution that is more specialized for the workflows that we need, and we chose to work with Zebra Technologies for being one of the industry leaders.

# How printing labels in Launchmetrics Samples works today:

1. We provide label templates written exclusively in ZPL that are adjusted to the exact measurement of the label while factoring in the printer's supported DPI and the contents required to print on these labels.

2. The printer is connected to a PC or MAC via USB, Ethernet (local or shared); the corresponding drivers are installed and the printer becomes discoverable by this device's operating system.

3. In order to streamline the entire printing experience, we make use of **proprietary 3rd party software that has to be downloaded and installed on the computer**. This installable software will handle both the discovery of available printers, and the transmission of the thermal template towards them.

    - We make use of QZ Tray for which we have a permanent license for unlimited usage within platforms hosted on domain **launchmetrics.com**. They also have an interactive demo page that makes it very easy to test the printer discovery and feature compatibility.

      Once installed, **QZ Tray** predominantly runs on port **8181**, on a **secure WebSocket** however in case this port is already used by a computer for other purposes, then QZ Tray will also attempt to secure a connection via alternative ports: **8282, 8383, 8484.**

      **Remark:** Given the fact that thermal printers from **other manufacturers** are known to be capable of interpreting ZPL instructions, by making use of zebra drivers - it is theoretically possible that such printers will be compatible with this software as well, but this has to be tested and confirmed.

4. Within various parts of the sample workflows that we support today as part of our web interface, we provide the ability to print one or more samples at the same time.

   This process first loads up the workflow's corresponding template written in ZPL, which by design contains placeholders; replaces these placeholders with attributes of the sample that is being printed, and then through the use of the program mentioned above transport these jobs to the printer, which in turn prints out the desired labels.

# How to test the printer connection to Launchmetrics Samples

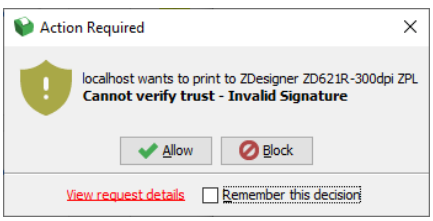
## Printer Prerequisites:

1. **Printer language:** Make sure the printer is able to process **ZPL II**
2. **Printer driver available:** Make sure that the printer has supported and up to date driver support and no known incompatibilities with the operating system of the computer you intend to print from (PC/Mac).

## Steps to test printer connection:

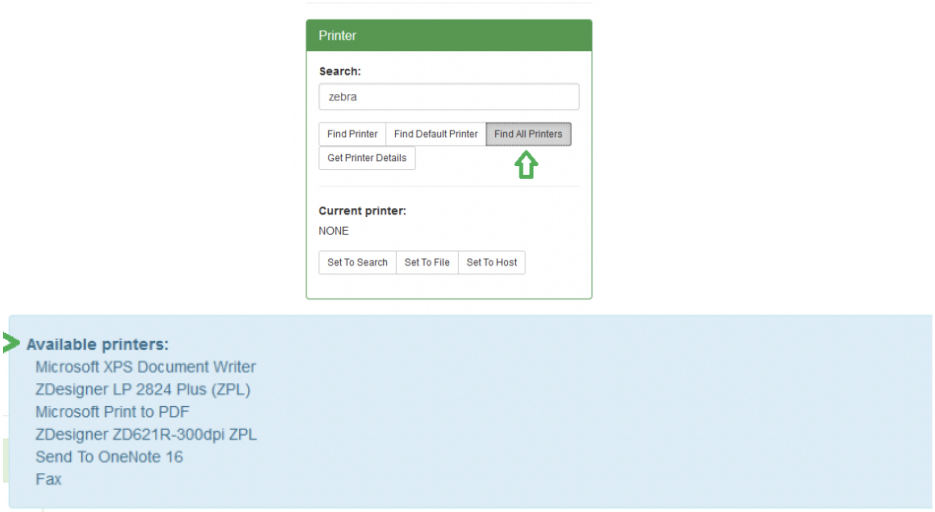
⚠️**If the printer is not discoverable after performing the following steps (and you have confirmed that the driver is set up correctly) then this printer is not compatible with the existing Launchmetrics platform.**

1. Install the **printer driver** onto the computer
    a. **On Mac OS** Here is an article that can help you achieve this
    b. **On Windows** we recommend installing the Zebra Setup Utilities driver. Be sure to check the release notes (found on the download page) to see if your printer is compatible with the driver.
2. Install **QZ Tray**.
    a. Depending on your operating system and preferred browser, you may be required to restart your browser or even your computer before the program can be executed.
3. Ensure QZ Tray is running on the computer
    a. For Macs, look in the top menu bar
    b. For Windows, look in the system tray in the bottom right corner
4. Make sure the printer is discoverable through the QZ Tray demo page
    a. Using a web browser please open the following web page https://demo.qz.io
    b. Since you are interacting with QZ Tray from an unlicensed domain (demo.qz.io), each interaction you do between this demo page and QZ Tray running on your computer will require a manual confirmation via a small prompt.




    c. Once you click Allow, you should see **Connection: Active** on the page

d. Press the **Find All Printers** button, and verify that the printer you are testing appears in the list of Available Printers. (see fig 1)




i. If the printer does not appear, please make sure you installed the **correct drivers** (For MACs, that may mean installing via CUPS)

ii. Make sure you have **QZ Tray** running on your computer.

## Steps to print a test label:

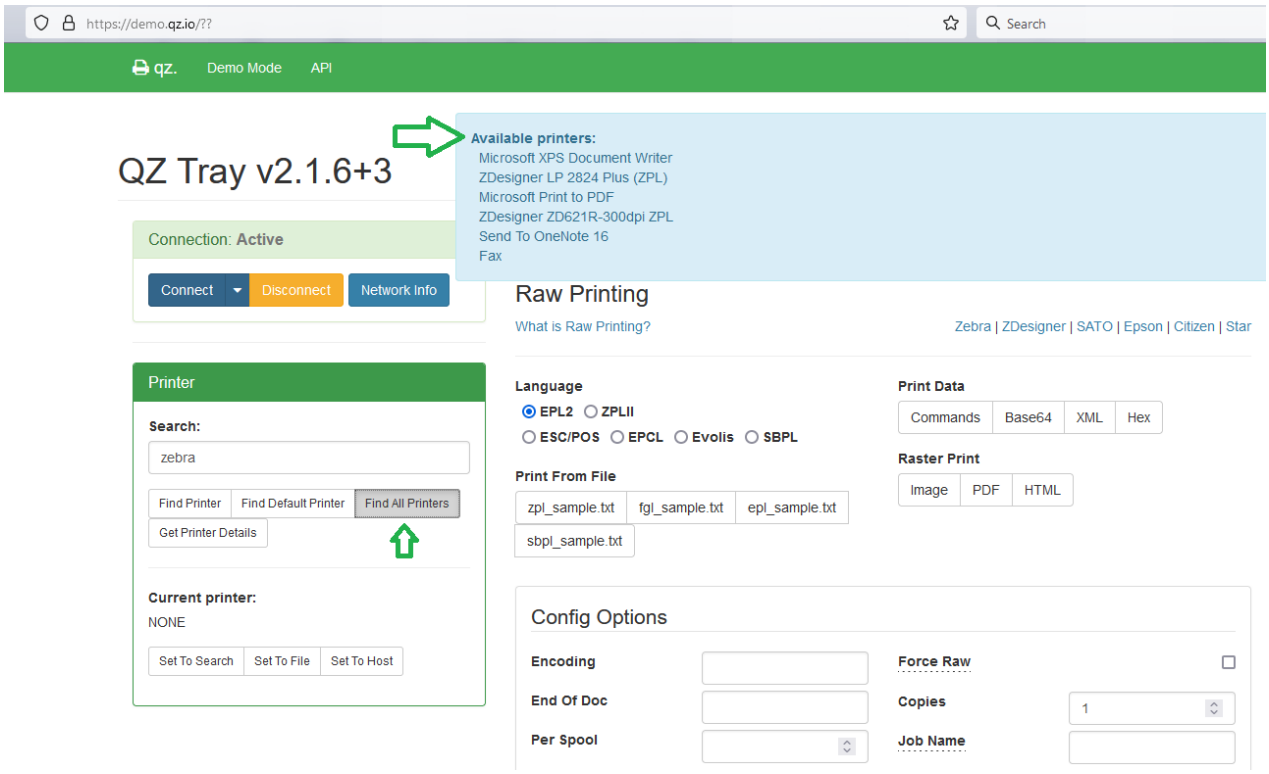
1. **Copy the name of the printer**, from the list of **Available Printers** that appear in the blue overlay.
2. **Paste that printer name** within the "Printer" section > Search bar (remark: make sure to remove any excess white spaces - both leading or trailing).
3. Then press **Find Printer**. If this operation has been performed correctly, you should be able to see a confirmation both as an additional light-blue overlay, as well as seeing your selected printer name under the **Current Printer** section of the demo page *(see fig 2)*
4. Press on the **zpl_sample.txt** button -> this should send a job with ZPL instructions towards your selected printer. The demo page will not display any confirmation, but **the printer should print out one label.**

    a. In case the printed label looks like ZPL code more than actual **formatted text**, please check the box called **Force Raw** within the **Config Options** section of that page and try again. (see fig 3)

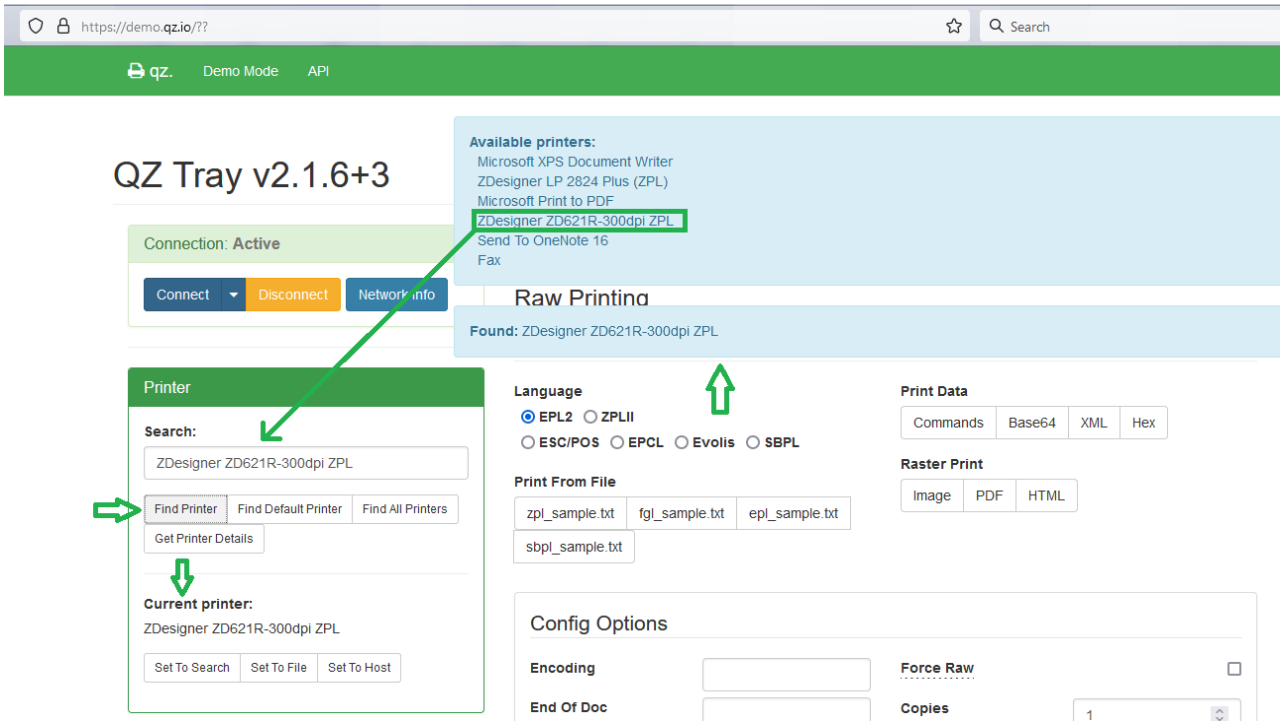
# Conclusion

After following all the steps above, and confirming successful connection & test print, then this means the printer **can** be used to print sample labels from the Launchmetrics Samples browser application.

**⚠️Caution ⚠️**
**Be aware that even if the printer passes these tests, there may be unexpected issues or features that Launchmetrics may not be able support. Please discuss any prerequisites or concerns with your Launchmetrics CSM or Implementation manager so that we can do our best to foresee and provide information upfront.**




(fig 1)




(fig 2)

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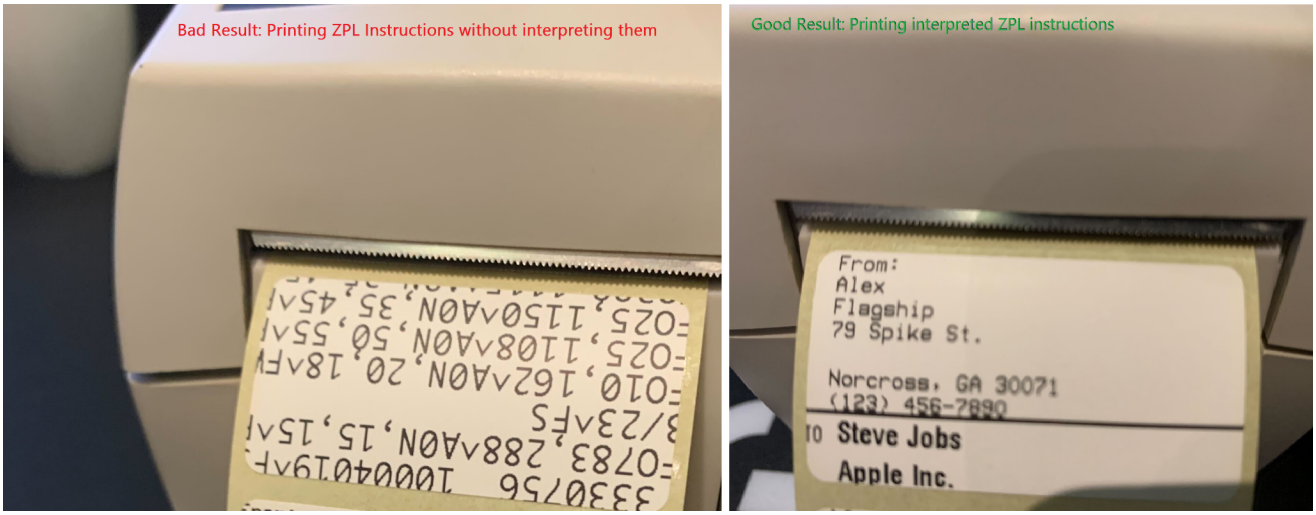
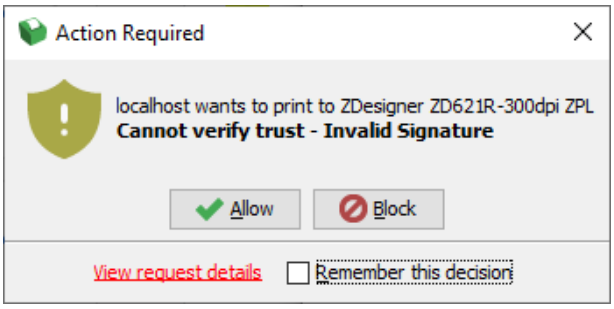

Bad Result: Printing ZPL Instructions without interpreting them
Good Result: Printing interpreted ZPL instructions
From:
Alex
Flagship
79 Spike St.
Norcross, GA 30071
(123) 456-7890
TO Steve Jobs
Apple Inc.

(fig 3)


Action Required
localhost wants to print to ZDesigner ZD621R-300dpi ZPL
Cannot verify trust - Invalid Signature
Allow
Block
View request details
Remember this decision

(fig 4)