Browser Print User Guide

Overview

Zebra Browser Print is a set of scripts and an end-user application that allows web pages to communicate with Zebra Printers. The application lets a web page communicate to Zebra devices accessible to the client computer.

Currently, Zebra Browser Print supports Macintosh OS X Yosemite and above, as well as Windows 7 and 10. Google Chrome, Mozilla Firefox, Internet Explorer, and Apple Safari browsers are supported. It can communicate to Zebra printers connected via USB and Network. For a more complete list of supported features, see the Supported Features.

This document outlines the basics for installing and using Browser Print:

Features

Installation (Windows)

Installation (Macintosh)

Running Browser Print

Restarting or Starting Browser Print

Using the Sample Demo

Printing an Image

Integration

Uninstalling (Windows)

Uninstalling (Macintosh)

Incompatibilities

Appendix – Supported Features

Features

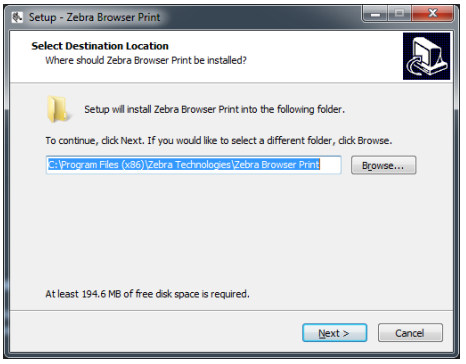
- Allows web page to communicate with Zebra Printers directly through the client computer's connection.
- Auto-discovers USB and network connected Zebra Printers.
- Allows two-way communication to devices.
- Has ability to set a default Printer for the end-user application, independent of the default printer used by the operating system.
- Has ability to print a PNG, JPG or Bitmap image using its URL.

Installation

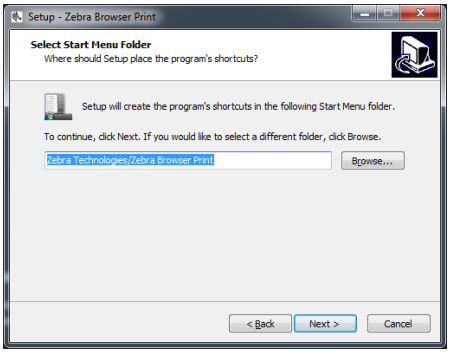
1. If you currently have a version of Browser Print or Zebra Web Driver installed, use the instructions for Windows Uninstallation (Windows) or Uninstallation (mac OS X) to uninstall it.
2. Please read the section on Incompatibilities for issues installing or running this program.
3. There are separate installers for mac OS x and Windows, follow the Windows instructions below or the Macintosh instructions here .

Installation (Windows)

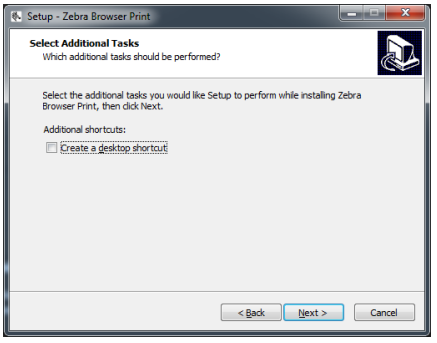
1. Run the installer executable “ZebraBrowserPrintSetup-1.3.X.exe”.
2. Select where you would like to save the Browser Print files and click “Next”.



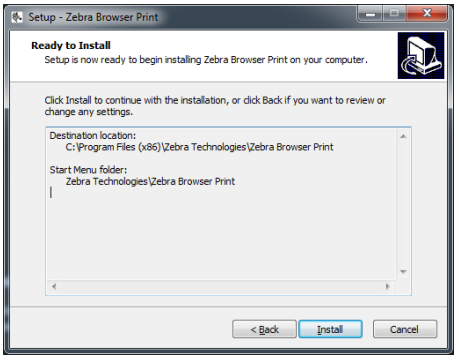
3. Select where you would like to run the program from and click “Next”.



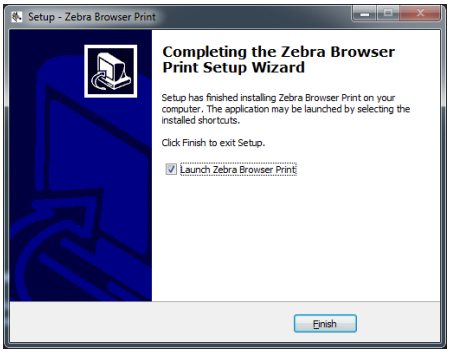
4. Decide if you want to have a desktop icon for Browser Print and click “Next”.



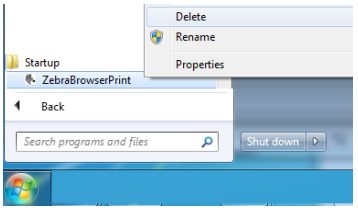
5. Click “Install”.



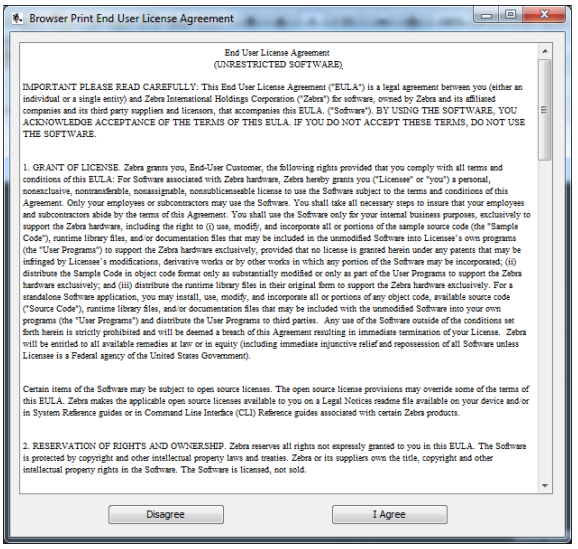
6. Check the box to launch Zebra Browser Print and click “Finish”. If you do not check the box, Zebra Browser Print will be launched the next time you restart your computer.



7. **Note:** The Windows installer adds a shortcut to the “startup” menu automatically. This feature will ensure that Browser Print runs when the computer is restarted. You can remove this feature by right-clicking on the shortcut in the startup menu. Browser Print will only work when started manually without the entry in “startup”.

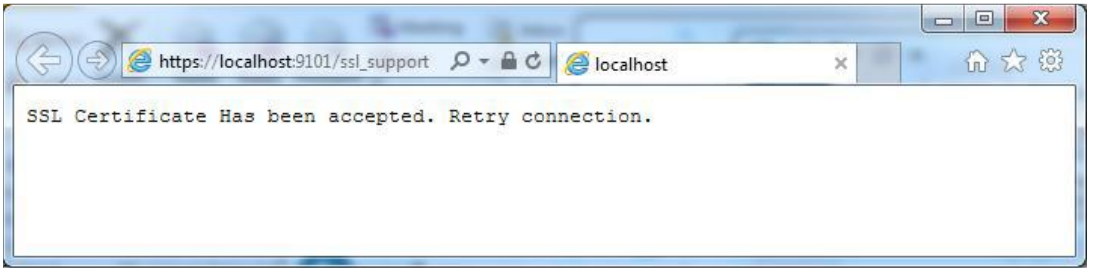


8. When the program runs for the first time, the End User License Agreement will pop-up. Select “I Agree”.

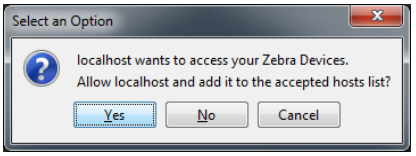


9. A pop-up about communicating with a web browser will appear. Click “OK”.

10. In a web browser, it displays that the SSL Certificate has been accepted.



11. A pop-up will appear requesting access to any connected Zebra devices. Select Yes.

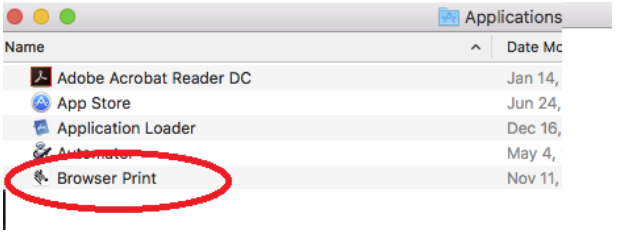


12. A Zebra logo icon will also appear in your system tray this indicates that Zebra Browser Print is running.

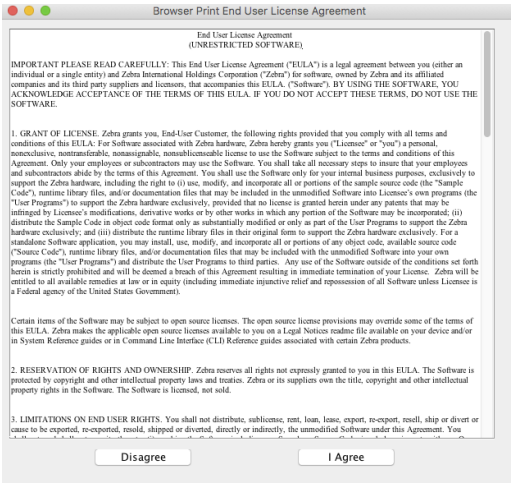
Installation (Macintosh)

1. For Macintosh OS X: Drag the Zebra Browser Print installation into the Applications folder:

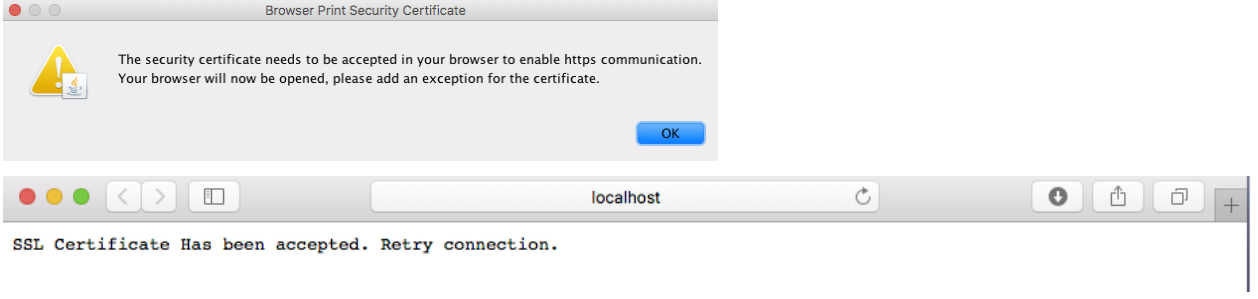
2. Click the “Applications” shortcut to open the “applications folder, then double-click the Browser Print Application:



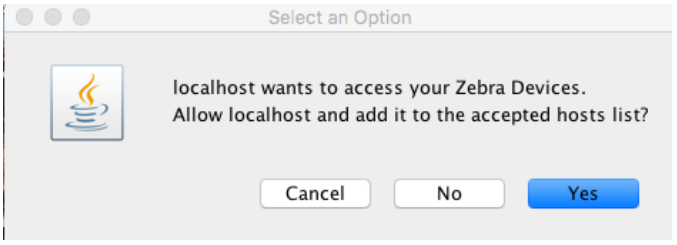
3. When started for the first time, the End User License Agreement will pop-up. Select “I Agree”.



4. A pop-up about communicating with a web browser will appear, and the certificate display in the web browser. Click “OK”.



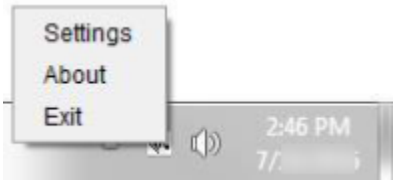
5. A pop-up will appear requesting access to any connected Zebra devices. Select Yes.

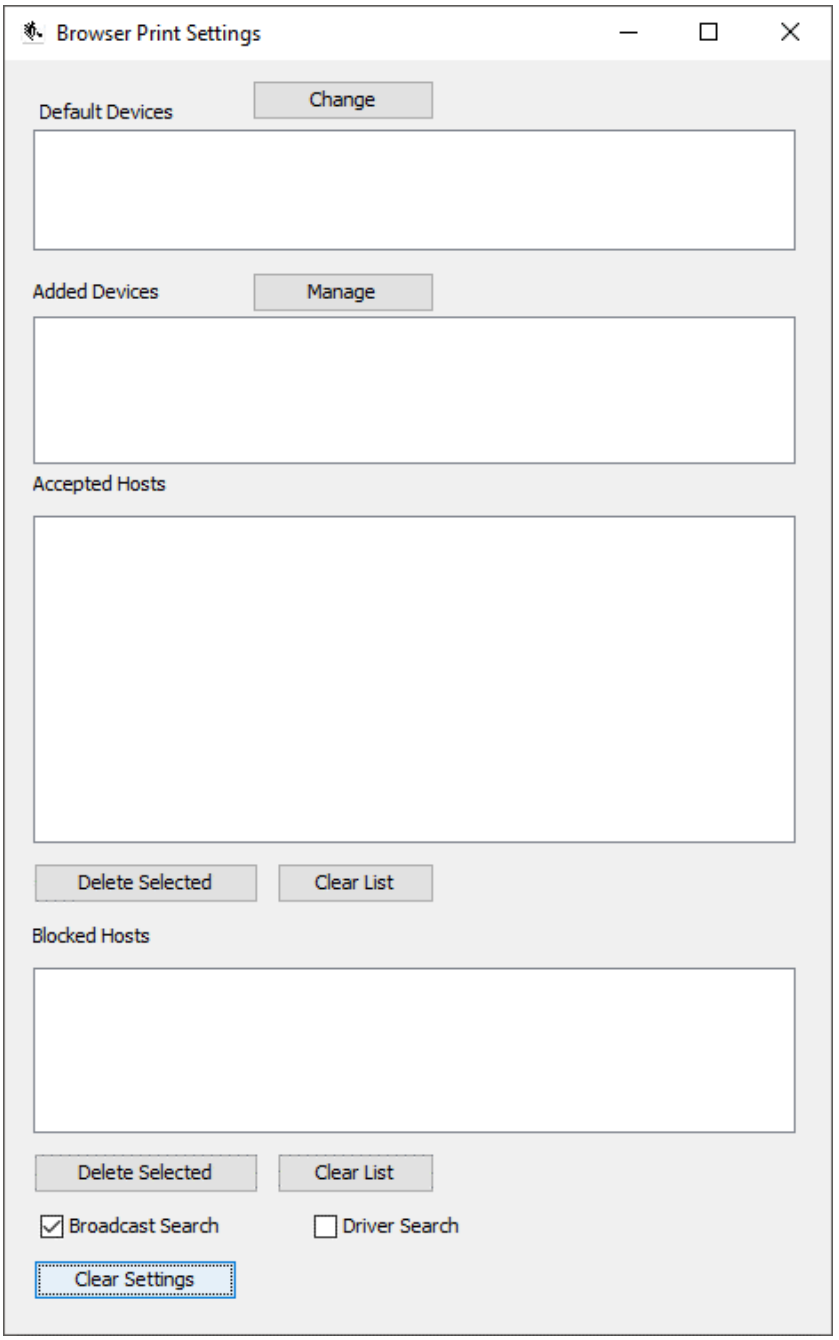


6. A Zebra logo icon will appear in your system tray this indicates that Zebra Browser Print is running.

Running BrowserPrint

1. Right-click (WIN) or Click (OS X) on the Zebra logo icon and select Settings. Browser Print's settings will open.





a. Default Devices: Lists the default device set for this user. This is different than the default printer set by the operating system. This can be changed once set via the “Change” button or via script.

b. Added Devices: Lists the devices that have been manually added by the user. These can be modified by clicking the “Manage button.

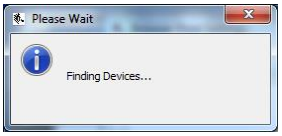
c. Accepted Hosts: Lists web addresses that the user has allowed access to their devices. These can be removed using this screen.

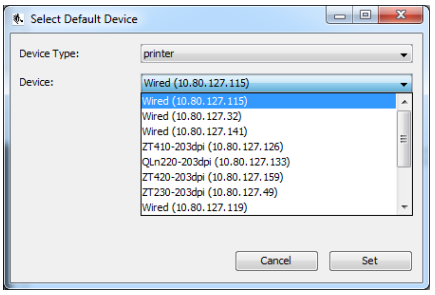
d. Blocked Hosts: Lists web addresses that the user has blocked access to their devices. These can be removed using this screen.

e. Broadcast Search: Selection box allows Zebra Browser Print to find and print on network connected Zebra Printers.

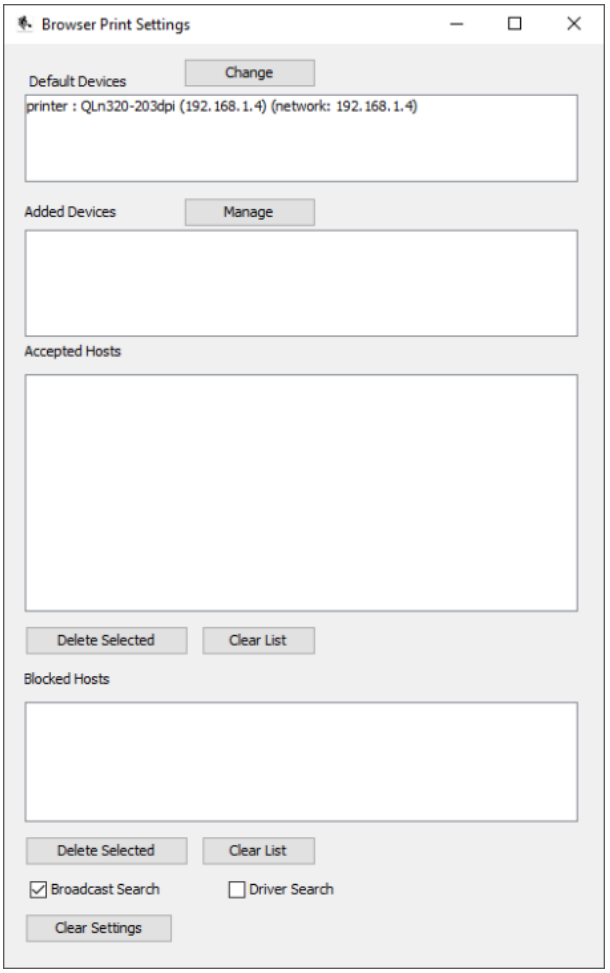
f. Driver Search: The application will display installed drivers in the discovered printer response.

3. To set or change the default printer, click the “Change” button. A pop-up will appear with a dropdown of all discoverable devices (finding network connected Zebra printers may take a few moments).

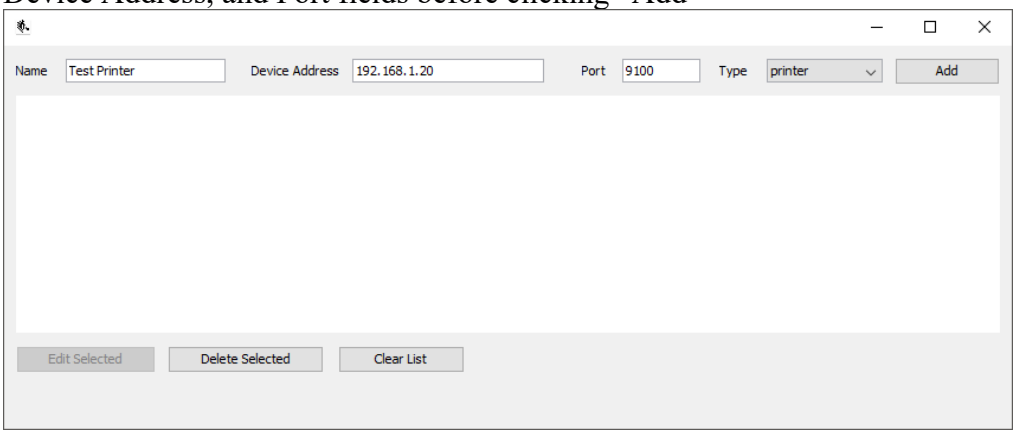




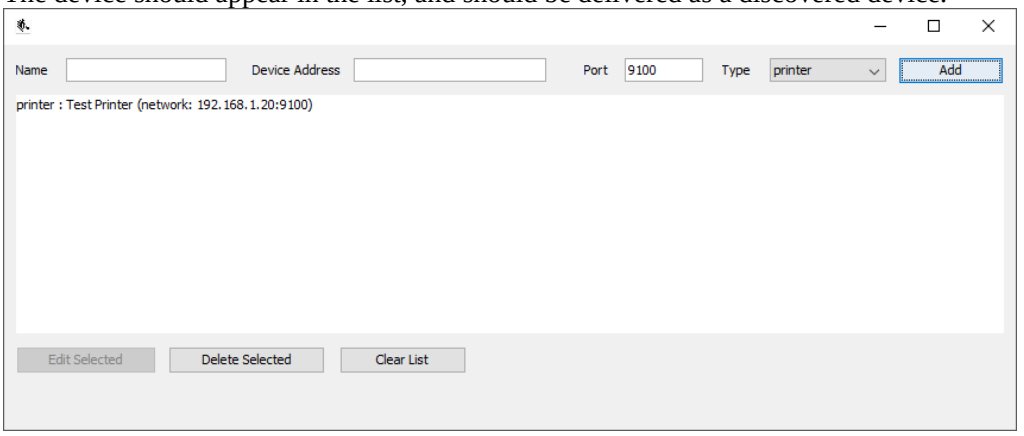
4. Select the device you would like to print to by default and click “Set”.



6. To manually add a printer, click the “Manage” button. To add a printer, fill out the Name, Device Address, and Port fields before clicking “Add”

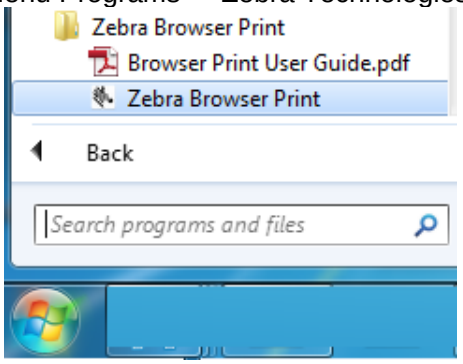


7. The device should appear in the list, and should be delivered as a discovered device.

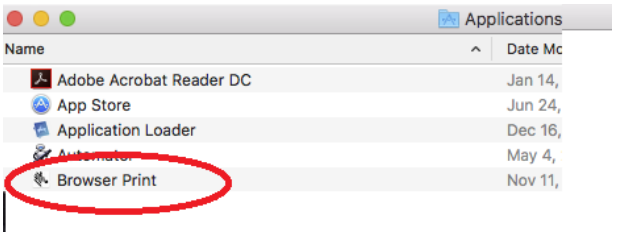


(Re)Starting BrowserPrint

For Windows:
Start Menu Programs -> Zebra Technologies -> Zebra Browser Print



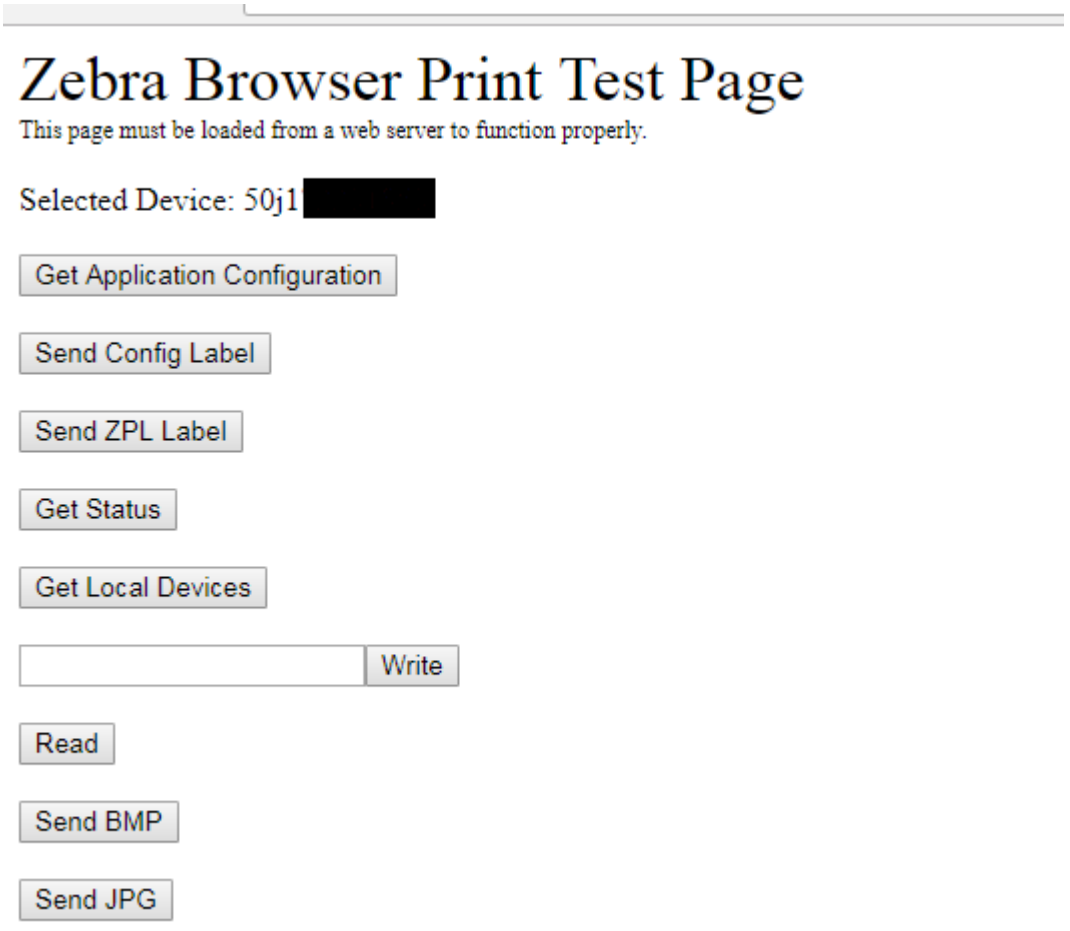
For Macintosh:
Use Finder to go to “applications” Double-Click” “Browser Print”


Applications
Name
Date Mc
Adobe Acrobat Reader DC
Jan 14,
App Store
Jun 24,
Application Loader
Dec 16,
May 4,
Browser Print
Nov 11,

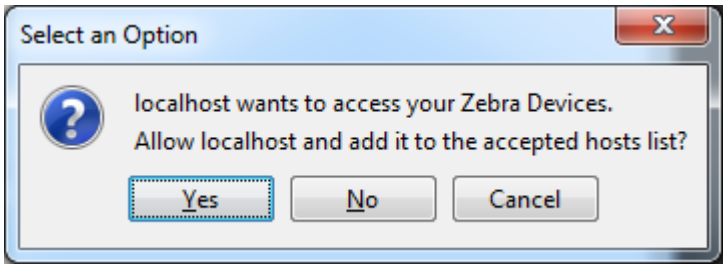
Using the Sample Page

1. Connect your Zebra printer using one of the following methods and set the default printer.
    a. Direct connect using a USB cable.
    b. Network Connection and by selecting "Broadcast Search" on the settings screen.

2. In the "sample" (typically located: "C:\Program Files (x86)\Zebra Technologies\Zebra Browser Print\Documentation\Sample" in Windows) folder, you will find a sample test page and supporting files. These files must be delivered from a web server to function properly, and will not work opening them locally in a web browser. Once delivered from a web server, a page will display that looks like this:



3. The application may ask for permission to allow the website to access your system's printers. Select "Yes" to give it access.



4. The website will then be added to the list of Accepted Hosts in the Browser Print application.

5. If you have selected a default printer in the Browser Print settings, the website will have it listed. If you have not, the printer will be undefined. If the printer is undefined, set a default device in the application and reload the page

6. The demo page supplies a number of buttons that demonstrate basic functionality of the Browser Print application and API. Clicking on "Send Config Label", "Send ZPL Label", "Send Bitmap" and "Send JPG" should result in the selected printer printing a label.

Integration

Zebra's Browser Print is intended to make it easier to print to a device from a web-based application using minimal coding effort.

Packaged with the Browser Print program in the "Documentation" directory is a directory called "BrowserPrint.js". This directory contains the latest Browser Print javascript library, which is an API to help you integrate Browser Print into your website. It is recommended that you include this JavaScript class in your web page to facilitate the use of the Browser Print application.

```
<script type="text/javascript" src="js/BrowserPrint-
[version].min.js"></script>
```

Full API documentation for the Browser Print API file can be found in the "Documenation\BrowserPrint.js" directory.

Sample Application

A sample application is available in the "Documentation\BrowserPrint.js\Sample" directory. The sample application must be delivered from web serving software such as Apache, Nginx, or IIS to function properly, and cannot be loaded by the browser as local files.

Incompatibilities

Browser Print runs in the background of a computer; however, it cannot run at the same time as certain other pieces of software. Browser Print cannot run when any other program is using the computer's 9100 or 9101 ports. These ports are used for RAW printing; that is, sending commands to the printer in a printer language, such as ZPL.

When a program is using these ports, Browser Print will display a message stating that it cannot print in the current state. This will also be the case if you have an older version of the program running.

Note: The only known Zebra software to be incompatible is CardStudio, ID card design software.

Limitations

Firmware and fonts cannot be loaded with this program.

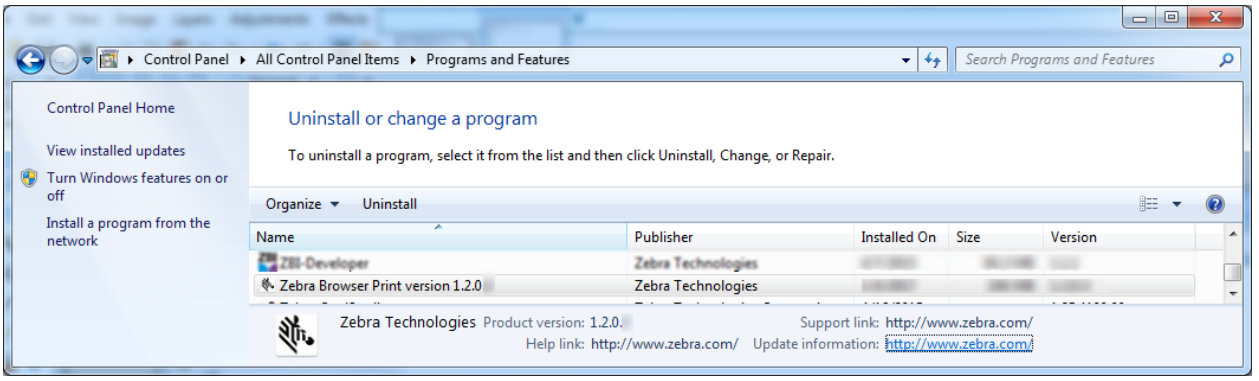
There is a limitation of 2MB uploading.

Multiple reads by the client may be required to successfully capture all data from the printer.

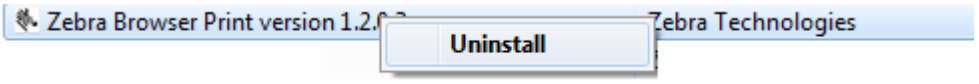
Safari users must accept the self-signed certificate in order to communicate with Browser Print over https. This is a limitation of Safari at the time of release of this version of Browser Print.

Uninstallation (Windows)

1. Right click the Browser Print icon in your system tray.
2. Select Exit. This makes Browser Print cease function in the background. The icon should disappear.
3. Enter the Windows Start menu and open your computer's Control Panel.
4. Click Programs and Features. Scroll down to Zebra Browser Print.



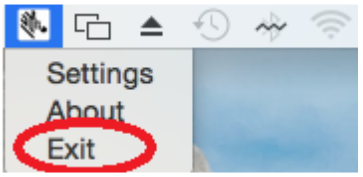
5. Right click Zebra Browser Print and select Uninstall.



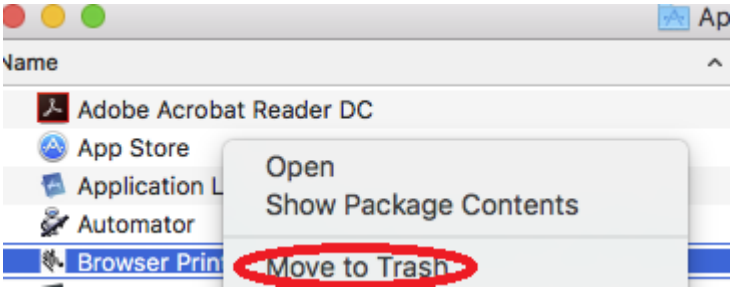
6. Zebra Browser Print will then be uninstalled by your computer. The Zebra Browser Print icon will disappear from your system tray and the Browser Print directory will no longer be on your system.

Uninstallation (mac OS X)

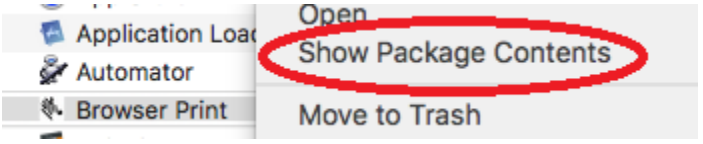
1. Exit the application:



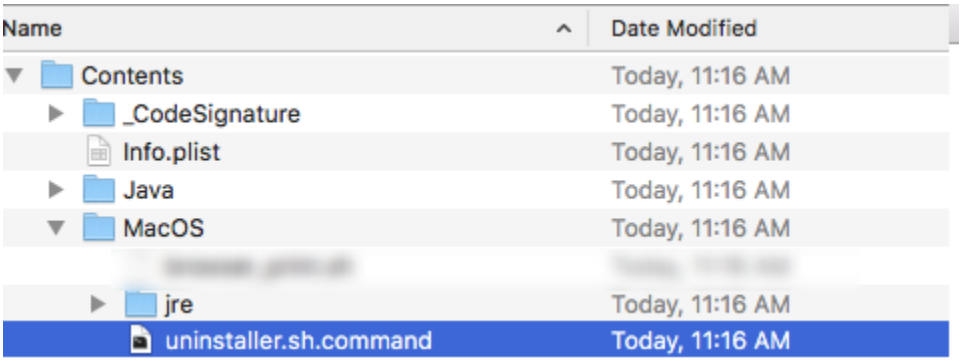
2. **NOTE:** Just moving the application to the trash leaves behind a settings file, see step #3 to remove this file first. To remove the application: Use Finder to go to “applications” Use the CMD-Click, click “Move to Trash”



3. This step, and #4 are optional steps to remove the settings file: Use the CMD-Click, click “Package Contents”



4. Expand “Contents” and “MacOS”, DoubleClick uninstaller.sh.app.command



Appendix – Supported Features

The following is a table of the currently supported features for Zebra's Browser Print.

Feature	Current Release
OS	Windows 7, Windows 10, mac OS X 10.10+
Browsers	Chrome 75+, Firefox 70+, Internet Explorer 11+, Edge 44+, Opera 65+, Safari 13+
Printers	ZT200 Series; ZT400 Series; ZT500 Series; ZT600 Series ZD400 Series; ZD500 Series; ZD600 Series ZQ300 Series; ZQ500 Series; ZQ600 Series ZQ300 Plus Series; ZQ600 Plus Series QLn Series; IMZ Series; ZR Series G-Series; LP/TLP2824-Z; LP/TLP2844-Z; LP/TLP3844-Z
Print Languages	ZPL II
Connection Types	USB and Network
File Size Limit	2 MB download to printer
Bi-directional Communications	^H and ~H ZPL commands (except ^HZA), and the following Set/Get/Do (SGD) commands: device.languages (read and write) appl.name (read only) device.friendly_name (read and write) device.reset (write only) file.dir (read and write) file.type (read only but must give an argument) interface.network.active.ip_addr (read and write) media.speed (read and write) odometer.media_marker_count1 (read and write) print.tone (read and write)
Image Printing	Yes (JPG, PNG or Bitmap)

Document Control

Version	Date	Description
1	August, 2016	Initial Release
2	November, 2016	mac OS X and Network Version 1.2.0
3	January, 2017	Updated images, fix typos
4	October, 2018	Added Changelog, updated sample website images.

5	January 2020	Updated for 1.3 release
6	February 2023	Updated for 1.3.2 release

Change Log

Version	Date	Description
1.1.6	August, 2016	Initial Release
1.2.0	November, 2016	• MacOS Release • Added image conversion and printing
1.2.1	October, 2018	• Https no longer uses a self signed certificate, removing the need to accept the certificate and removing the “Insecure” warning browsers displayed when using the self-signed certificate. • Fixed issue with Unicode characters not being printed properly • Fixed issue with phantom windows appearing under dialogs. • Fixed issue with settings window sometimes not appearing in front of the active program
1.3.0	January 2020	• Added ability to manually add devices to the application. All add devices are delivered on every device discovery call. This allows users to specify devices that can’t be discovered, or are currently offline • Application now requires all devices to have been “discovered” in order to be used. Websites will no longer be able to specify their own devices • Greatly expanded the graphic conversion capabilities and options • Fixed issues with connection timeouts • Updated embedded JVM • Fixed issue that could cause device discovery to hang • Fixed issue that could cause UI elements to open behind other windows. • Fixed issue that allowed duplicate UI windows to open.
1.3.1	November 2020	• Updated embedded JRE

		• Updated documentation
1.3.2	February 2023	• Added ability to mask sections of images • Added ability to scan barcodes in images • Fixed issue with language localizations failing to load • Fixed issue with printing 1 bit per pixel source images • Updated embedded JRE

Disclaimer

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