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ZebrA Enterprise SERVICES

Revision History

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# Overview

The Zebra Enterprise Services expose industrial functionalities to any Android Web Browser.

The first implementation of the Services implements the PrintConnect API, this allows to connect, disconnect and send print jobs to any Zebra LinkOS Printer.

The printing API has been implemented using two different entry points:

* A local REST Web Service  
  It allows any Android browser to send REST commands using standard Web methods, and retrieve the result in a JSON format response.
* An implementation of the Chrome Intent URL Schemes.  
  The Chrome Intent implementation allows any Android browser to send print commands using the intent:// URL Scheme.  
  The results are displayed using Android native Toasts windows (small popup window that appears on top of any application for a user defined duration, then disappears)  
  To enable Chrome Intent protocol, the Zebra Enterprise Services (ZES) will register a new URL commands to the intent:// scheme.  
  Each command will allow the user to do specific actions.

Both implementations can be addressed using standard Web methods.

They rely on Zebra’s PrintConnect Driver to ensure the communication with the Printer.

Thanks to PrintConnect and ZES, any Android browser can communicate with any LinkOS Zebra’s Printer through Bluetooth, Wifi, Ethernet.

More information about PrintConnect can be found on the Zebra’s Website:

<https://www.zebra.com/us/en/products/software/barcode-printers/link-os/print-connect.html>

All the commands of Browser Intent URL Service derive from the PrintConnect Intent API.

For more information, refer to the PrintConnect documentation (in the Intents section you'll find a description of the methods implemented by the BIUS/RESTWs):

<https://www.zebra.com/content/dam/zebra_new_ia/en-us/solutions-verticals/product/Software/Printer%20Software/Link-OS/print-connect/PC-UserGuide-P1082444-001.pdf>

## Architecture

This solution is based on two components: PrintConnect that acts like a printer driver on Android, and ZES that wraps all PrintConnect commands in a Web REST Service or as Chrome Intent URLs.

Chrome, Firefox,Opera,…

Enterprise Services

PrintConnect

Android

LinkOS Printer

DataWedge

Scanner

## Pre-requisites

Hardware:

* An Android device
* A Zebra’s LinkOS Printer

Software:

* Zebra’s PrintConnect
* ZebraEnterpriseServices.apk

## PrintConnect Installation

To work properly, the PrintConnect driver MUST be installed before using the Browser Intent URL Service.

PrintConnect can be downloaded from the Google Playstore:

<https://play.google.com/store/apps/details?id=com.zebra.printconnect>

Or from the Zebra Website:

<https://www.zebra.com/us/en/products/software/barcode-printers/link-os/print-connect.html>

## Zebra Enterprise Services Installation

Install the Zebra PrintConnect apk on the device.

Install the Zebra Enterprise Services apk on the device.

1. Chrome Intent URLs installation steps:
   * Reboot the device.
   * Launch your enterprise web application in your selected browser
2. REST Web Services manual installation steps:
   * Launch ZES application
   * Start the Service

## Licence

The Licence associated with ZES can be read from the application graphical user interface thanks to the “Licence” button or is available at the end of the current document in the Appendix section ([Licence](#_Licence))

**Please read carefully the Zebra Open Source Software License associated with this project before use**

# REST Web Service

## How To

The printer must be paired using PrintConnect to allow the Web Service to work properly.

To do this, simply install PrintConnect, and then do an NFC pairing with a mobile bluetooth printer or any other kind of pairing (Wifi, Ethernet)

The process is explained in the PrintConnect user guide.

The print commands can be executed using standard REST WS calls on the device local IP address.

* Example of printing ZPL using the window.open API:  
  window.open("http://localhost:8080/?command=printzpl&template=^XA^FO10,10^ADN,300,70^FDTEST^FS^XZ");
* Example of printing a text in single line mode using fetch with base64 encoded data:  
  fetch("http://127.0.0.1:8080/?command=printsingleline&encoding=base64encoded&standardCharsets=UTF\_16&text=//5UAGgAaQBzACAAaQBzACAAbQB5ACAAdABlAHgAdAANAAoAVABvACAAcAByAGkAbgB0AA0ACgBFAG4AYwBvAGQAZQBkACAAaQBuACAAYgBhAHMAZQA2ADQADQAKAFcAaQB0AGgAIABjAGEAcgByAGkAYQBnAGUAIAByAGUAdAB1AHIAbgBzAA0ACgANAAoA").then(response => { if(response.ok) return response.json();}).then(json => document.getElementById("RestWSResponse").innerHTML = "<p>Status : " + json.result + "</p>\n<p>Message : " + json.message + "</p>\n");
* Example of unselecting the printer using XMLHttpRequest:

var xhr = new XMLHttpRequest();

var encodedCommand = encodeURIComponent("unselect");

xhr.open("GET", "http://"+ destIP + ":8080/?command="+ encodedCommand, true);

xhr.onreadystatechange = function (oEvent)

{

if (xhr.readyState === XMLHttpRequest.DONE)

{

if (xhr.status === 200)

{

console.log(xhr.responseText);

document.getElementById("RestWSResponse").innerHTML = "<p>Success : " + xhr.responseText + "</p>\n";

}

else

{

console.log("Error", xhr.statusText);

document.getElementById("RestWSResponse").innerHTML = "<p>Error : " + xhr.statusText + "</p>\n";

}

}

};

xhr.send(null);

For better readability, the REST functions will be showcased using the target URL.

The choice of the method used to execute this URL is left to the user discretion.

## URL Format

The commands are passed in a classic REST WS Call format.

The URL are formed this way:

http://localhost:8080/?command=mycommand&myRESTParameter1=something

The text in dark blue represent the mandatory part of the URL.

The text in green represent the variable members of the URL.

**As we are dealing with URL all the texts or base64Data that you will use MUST be URIEncoded before usage.**

The standard javascript method encodeURIComponent will replace special characters like + or / or = with their % equivalent.

For example, / will be replaced by %2F.

Using URIEncoded values ensure that the content of the data that is passed to the service won’t interfere with the URI format.

Ex:

The following base64 encoded template can’t be used without being encoded:



**The //, + and = characters are reserved characters.**

Here is the result after URI encoding:

%2F%2F5DAFQAfgB%2BAEMARAAsAH4AQwBDAF4AfgBDAFQAfgBeAFgAQQB%2BAFQAQQAwADAAMAB%%3D%3D

**The special characters have been replaced by their % equivalents, preventing an URL malformation.**

## Return value

Once executed, the Web Service will return a JSON Response.

The response has the following format:

{

“result”: RETURN\_STATE,

“message”: RETURN\_MESSAGE

}

The return state can be:

* Success
* Error
* Timeout

If the command succeeded, the response will only contain the result, it won’t contain a message.

If the command response indicates an error or a timeout, a message will be provided in the JSON structure to get information on why the command ended up with an error or a timeout.

## Data Encoding

The data that needs to be printed can be passed as plain text or as base64 encoded data.

The choice is made using the encoding parameter which must be set to base64encoded when user wants to use encoded data.

By default, the Web service will process the data with the UTF\_8 character set.

The character set can be specified using the parameter standardCharsets.

It supports following values: UTF\_8, UTF\_16, UTF\_16BE, UTF\_16LE, ISO\_8859\_1, US\_ASCII

The encoding tests were done with the following site:

https://www.base64encode.org/

You can use the following API (MIT license) to encode directly from javascript: https://github.com/emn178/hi-base64

The data **MUST be URI encoded before being used with the encodeURIComponent method** (see URL Format chapter for more information: [URL Format](#_URL_Format))

Examples:

* Print a single line without encoding:   
  http://localhost:8080/?command=printsingleline&text=This is the text to print
* Base64 UTF\_8 encoded data:  
  http://localhost:8080/?command=printsingleline&encoding=base64encoded&standardCharsets=UTF\_8&text=Q2FwdHVyZSB5b3VyIHBlcmZvcm1hbmNlIGVkZ2UNCndpdGggWkVCUkEgU29sdXRpb25zLg%3D%3D
* Base64 UTF-16 encoded data:  
  http://localhost:8080/?command=printzpl&encoding=base64encoded& standardCharsets=UTF\_16&template=%2F%2F5DAFQAfgB%2BAEMARAAsAH4AQwBDAF4AfgBDAFQAfgBeAFgAQQB%2BAFQAQQAwADAAMAB%%3D%3D

## Commands

### Connect

The connect command allows you to connect a printer to the device.

The connection can be made over Bluetooth, Wifi or Ethernet.

If the printer is connected both to Wifi and Bluetooth, the Wifi connection will be privileged to get the best performances.

A device connected to the Wifi can be connected to an ethernet printer if they are on the same network.

The REST command is: connect

The Bluetooth Mac address is specified with the parameter: bluetoothMAC

The Bluetooth Wifi address is specified with the parameter: wifiMAC

The Bluetooth Ethernet address is specified with the parameter: ethernetMAC

Example of connecting to a QLn320 that has Bluetooth and wifi capabilities:

http://localhost:8080/?command=connect&bluetoothMAC=XXXXXXXXXXXX&wifiMAC=XXXXXXXXXXXX

Example of connecting to a ZT600 industrial printer that is connected through ethernet:

http://localhost:8080/?command=connect&ethernetMAC=XXXXXXXXXXXX

### ZPL Printing

This command allows you to send raw ZPL code to the printer.

The REST command is: printzpl

The ZPL data are specified with the parameter: template

Example in plaintext:

http://localhost:8080/?command=printzpl&template= ^XA^FO10,10^ADN,300,70^FDTEST^FS^XZ

Example with base64 encoding:

http://localhost:8080/?command=printzpl&encoding=base64encoded&standardCharsets=UTF\_8&template=XlhBXkZPMTAsMTBeQURBLDE1MCw0MF5GRFRlc3QgWlBMXkZTXlha

### ZPL Printing with variable data

This command allows you to send raw ZPL code with variable parameters to the printer.

The REST command is: printzpl

The ZPL data are specified with the parameter: template

The variable data are specified with the parameter: variables

Variable data must be composed of value/key pairs separated by “:”

The number of parameters separated by “:” must be pair (the reminder of a division by 2 must be null)

As mentioned before, **the template and the variable data MUST be URI Encoded** before creating the full URL.

Example of variable data encoded and not encoded:

* Not URI Encoded variables:  
  %MYVAR1KEY%:myvar1value:%MYVAR2KEY%:myvar2value:%MYVAR3KEY%:myvar3key
* URI Encoded variables:  
  %25MYVAR1KEY%25%3Amyvar1value%3A%25MYVAR2KEY%25%3Amyvar2value%3A%25MYVAR3KEY%25%3Amyvar3key

**If the data are passed as a base64 encoded string, the variables MUST be encoded in base64 as well (the encoding must be the same than the one used for the template data).**

URL Intent Example in plaintext:

http://localhost:8080/?command=printzpl&template=CT~~CD%2C~CC%5E~CT~%5EXA~TA000~JSN%5ELT0%5EMNN%5EMTD%5EPON%5EPMN%5ELH0%2C0%5EJMA%5EPR5%2C5~SD10%5EJUS%5ELRN%5ECI0%5EXZ%5EXA%5EMMT%5EPW406%5ELL0200%5ELS0%5EFT38%2C83%5EA0N%2C27%2C28%5EFH%5C%5EFDPierre%20d'ouverture%2C%20%5EFS%5EFT38%2C116%5EA0N%2C27%2C28%5EFH%5C%5EFDli%5C82e%20au%20%25TEXTE%25%20du%20coeur%20et%20%5EFS%5EFT38%2C149%5EA0N%2C27%2C28%5EFH%5C%5EFD%5C85%20v%5C82nus%20apaisante%2C%20favorise%20%5EFS%5EFT38%2C182%5EA0N%2C27%2C28%5EFH%5C%5EFDla%20gu%5C82rison%20des%20%5C82motions%20%25CODE%25%5EFS%5EFT107%2C44%5EA0N%2C39%2C38%5EFH%5C%5EFDMALACHITE%5EFS%5EFO304%2C29%5EGB79%2C0%2C8%5EFS%5EFO13%2C29%5EGB79%2C0%2C8%5EFS%5EPQ1%2C0%2C1%2CY%5EXZ&variables=%25TEXTE%25%3Amontexte%3A%25CODE%25%3A12345

Example in base64 ASCII Encoded data:

http://localhost:8080/?command=printzpl&encoding=base64encoded&standardCharsets=US\_ASCII&template=Q1R%2BfkNELH5DQ15%2BQ1R%%3D&variables=JVRFWFRFJTptb250ZXh0ZTolQ09ERSU6MTIzNDU%3D

### FileName Print

This command will allow you to print a template file (refer to PrintConnect guide for more information)

The REST command is: printtemplatefile

The filename is passed using the parameter: filename

Optional variable data can be passed using the parameter: variables

Examples:

http://localhost:8080/?command=printtemplatefile&filename=mytemplate.zpl

http://localhost:8080/?command=printtemplatefile&filename=mytemplate.zpl&variables=%25TEXTE%25%3Amontexte%3A%25CODE%25%3A12345

### Line Print

This command allows to send raw text to the printer.

The REST command is: printsingleline

The text to print is passed using the parameter: text

**Raw text MUST be URI Encoded if it contains spaces or special characters like /,=,+,&,…**

**Raw text MUST be base64 encoded in if it contains carriage returns.**

Example of printing a line of text without spaces or special characters:

http://localhost:8080/?command=printsingleline&text=ATextToPrintWithoutSpacesOrSpecialCharacters

Example of printing a line of text that contains spaces and special characters:

http://localhost:8080/?command=printsingleline&text=A%20text%20to%20print%20with%20speci%40l%20%2F%2F\*%2B%2B%3D%3Dch%40r%40cters%3D%3D%2B%2B\*%2F%2F%20and%20spaces

// Print raw text with carriage returns encoded in base64 UTF-16 CRLF

http://localhost:8080/?command=printsingleline&encoding=base64encoded&standardCharsets=UTF\_16&text=%2F%2F5UAGgAaQBzACAAaQBzACAAYQAgAHQAZQB4AHQAIAB3AGkAdABoACAAQwBSAEwARgAgAA0ACgBjAGEAcgByAGkAYQBnAGUAIAByAGUAdAB1AHIAbgBzACAAKAB3AGkAbgBkAG8AdwBzACkADQAKAEEAbgBkACAAcwBvAG0AZQAgAHMAcABlAGMAaQBhAGwADQAKAGMAaABAAHIAQABjAHQAZQByAHMAIABsAGkAawBlADoADQAKACoAKgArACsAPQA9AC8ALwAkACQAXgBeAF4AXgBeAA0ACgB8AEUAbgBkACAAbwBmACAAdAByAGEAbgBzAG0AaQBzAHMAaQBvAG4AfAA%3D

### Passthrough Print

Passthrough print allows to send raw data to the printer.

The following data can be send to the printer:

* ZPL
* CPCL
* SetGetDo commands
* Raw text

These data will be interpreted by the printer according to its settings.

Ex: ZPL text send when the printer is in RawText mode will print un-processed ZPL content instead of printing the interpretation of this content.

Check PrintConnect User Guide for more information on passthrough printing.

The REST command is: passthrough

The text to print is passed using the parameter: data

Example of sending Raw text:

http://localhost:8080/?command=passthrough&data=I'm%20a%20raw%20text

Example of sending ZPL code:

http://localhost:8080/?command=passthrough&data=^XA^FO10,10^ADN,300,70^FDTEST^FS^XZ

### Unselect Printer

This command allows to un-select the current Printer.

Once executed, the user won’t be able to print or send anything until a new printer is selected with PrintConnect (or connected using Tap&Pair).

Example:

http://localhost:8080/?command=unselect

# Browser Intent URL Service

Note: This method is not recommended if you plan to use Chrome browser.

It happened that on some versions, the new registered intent schemes sometime stop working.

This does not happen with Firefox and Opera, and maybe other browsers.

If you plan to use Chrome, and the intent suddenly stop working, it is advised to run Firefox once to fix Chrome behaviour.

## How To

The printer must be paired using PrintConnect for the wrapper to work.

To do this, simply install PrintConnect, and then do an NFC pairing with a mobile bluetooth printer or any other kind of pairing (Wifi, Ethernet)

The process is explained in the PrintConnect user guide.

The commands can be executed using a href in an HTML element or simply by using the window.open("") method;

Example of line-to-line printing using the javascript window.open method

window.open("intent://printsingleline/#Intent;scheme=plaintext;package=com.zebra.enterpriseservices;S.text=This is the text to print;S.verbose=true;end");

## URL Format

The commands are passed to the intent as a “virtual server”.

The target package has to be specified in the URL (i.e. the browserintenturl service package).

The URL are formed this way:

Intent://mycommand/#Intent;scheme=myscheme;package=com.zebra.enterpriseservices;mycommandextras;S.verbose=myverbosechoice;end

The text in dark blue represent the mandatory part of the URL.

The text in green represent the variable members of the URL.

## Feedback control

The extra S.verbose can be passed to the URL to control the display of information popups or not.

S.verbose=true will display popup informations.

S.verbose=false will not display popup informations.

## Data Encoding

The data that needs to be printed can be passed as plain text or as base64 encoded data.

The choice is made using the scheme attribute which can take the values: plaintext or base64encoded.

The extra S.standardCharsets specifies the type of the base64 encoded string. It supports following values: UTF\_8, UTF\_16, UTF\_16BE, UTF\_16LE, ISO\_8859\_1, US\_ASCII

The encoding tests were done with the following site:

https://www.base64encode.org/

You can use the following API (MIT license) to encode directly from javascript: https://github.com/emn178/hi-base64

If you use non-encoded strings, it is better to "escape" them before passing them to the URL:

https://www.freeformatter.com/javascript-escape.html

Examples:

* Plain text intent:   
  intent://printsingleline/#Intent;scheme=plaintext;package=com.zebra.enterpriseservices;S.text=This is the text to print;S.verbose=true;end
* Base64 ASCII encoded data:  
  intent://printzpl/#Intent;scheme=base64encoded;package=com.zebra.enterpriseservices;S.template=;S.standardCharsets=US\_ASCII;S.verbose=true;end
* Base64 UTF-16 encoded data:  
  intent://printzpl/#Intent;scheme=base64encoded;package=com.zebra.enterpriseservices;S.template=;S.standardCharsets=UTF\_16;S.verbose=true;end

## Quit Parameter

When a print intent is send by Chrome, the application will momentarily open a transparent window on top of Chrome (or any other browser that supports Chrome Intents URL), and will quit.

The Quit parameter allows to control.

The extra S.quitmode can be passed to the URL to control how the application will return the focus to the browser.

The following values can be used:

* FINISH\_AFFINITY // Default value. Will finish current task affinity
* FINISH\_AND\_REMOVE\_TASK // Will finish current task affinity and remove it
* MOVE\_TASK\_TO\_BACK // Will move print task to the back of the app stack
* KILL\_PROCESS // Kill task process
* SYSTEM\_EXIT // Use System.Exit to kill the application
* LAUNCH\_INTENT // Launch an intent to put an app to the front

When the print job is sent using the LAUNCH\_INTENT parameters, **the extra S.component must be provided in the intent URL**:

* S.component  
  The component name of the application we wants to put on front.

Examples:

* Simulate a press back to remove transparent window:   
  intent://printsingleline/#Intent;scheme=plaintext;package=com.zebra.enterpriseservices;S.text=This is the text to print;S.verbose=true;S.quitmode=PRESS\_BACK;end
* Kill the application when the print job is done:   
  intent://printsingleline/#Intent;scheme=plaintext;package=com.zebra.enterpriseservices;S.text=This is the text to print;S.verbose=true;S.quitmode=SYSTEM\_EXIT;end
* Put the Chrome browser on front when the job print is done:  
  intent://printsingleline/#Intent;scheme=plaintext;package=com.zebra.enterpriseservices;S.text=This is the text to print;S.verbose=true;S.quitmode=LAUNCH\_INTENT;S.component= com.android.chrome; end
* Put the Firefox browser on front when the job print is done:  
  intent://printsingleline/#Intent;scheme=plaintext;package=com.zebra.enterpriseservices;S.text=This is the text to print;S.verbose=true;S.quitmode=LAUNCH\_INTENT;S.component= org.mozilla.firefox;end

## Commands

### ZPL Printing

This command allows you to send raw ZPL code to the printer.

The URL virtual server is: printzpl

The ZPL data is passed with the extra: S.template

Example:

intent://printzpl/#Intent;scheme=plaintext;package=com.zebra.enterpriseservices;S.template=CT~~CD,~CC^~CT~^XA~TA000~JSN^LT0^MNN^MTD^PON^PMN^LH0,0^JMA^PR5,5~SD10^JUS^LRN^CI0^XZ^XA^MMT^PW406^LL0200^LS0^FT38,83^A0N,27,28^FH\\^FDPierre d\'ouverture, ^FS^FT38,116^A0N,27,28^FH\\^FDli\\82e au chakra du coeur et ^FS^FT38,149^A0N,27,28^FH\\^FD\\85 v\\82nus apaisante, favorise ^FS^FT38,182^A0N,27,28^FH\\^FDla gu\\82rison des \\82motions^FS^FT107,44^A0N,39,38^FH\\^FDMALACHITE^FS^FO304,29^GB79,0,8^FS^FO13,29^GB79,0,8^FS^PQ1,0,1,Y^XZ;S.verbose=true;end

### ZPL Printing with variable data

This command allows you to send raw ZPL code with variable parameters to the printer.

The URL virtual server is: printzpl

The ZPL data is passed with the extra: S.template

The variable data are passed with the extra: S.variables

Variable data must be composed of value/key pairs separated by “:”

The number of parameters separated by “:” must be pair (the reminder of a division by 2 must be null)

Example of variable data extra:

S.variables=%MYVAR1KEY%:myvar1value:%MYVAR2KEY%:myvar2value:%MYVAR3KEY%:myvar3key

**If the data are passed as a base64 encoded string, the variables MUST be encoded with the same format.**

URL Intent Example:

intent://printzpl/#Intent;scheme=plaintext;package=com.zebra.enterpriseservices;S.template=CT~~CD,~CC^~CT~^XA~TA000~JSN^LT0^MNN^MTD^PON^PMN^LH0,0^JMA^PR5,5~SD10^JUS^LRN^CI0^XZ^XA^MMT^PW406^LL0200^LS0^FT38,83^A0N,27,28^FH\\^FDPierre d\'ouverture, ^FS^FT38,116^A0N,27,28^FH\\^FDli\\82e au %TEXTE% du coeur et ^FS^FT38,149^A0N,27,28^FH\\^FD\\85 v\\82nus apaisante, favorise ^FS^FT38,182^A0N,27,28^FH\\^FDla gu\\82rison des \\82motions %CODE%^FS^FT107,44^A0N,39,38^FH\\^FDMALACHITE^FS^FO304,29^GB79,0,8^FS^FO13,29^GB79,0,8^FS^PQ1,0,1,Y^XZ;S.variables=%TEXTE%:montexte:%CODE%:12345;S.verbose=true;end

ASCII Encoded data:

intent://printzpl/#Intent;scheme=base64encoded;package=com.zebra.enterpriseservices;S.template=;S.variables=JVRFWFRFJTptb250ZXh0ZTolQ09ERSU6MTIzNDU=;S.standardCharsets=US\_ASCII;S.verbose=true;end

### FileName Print

This command will allow you to print a template file (refer to PrintConnect guide for more information)

The URL virual server is: printtemplatefile

The filename is passed using the extra: S.filename

Optional variable data can be passed using the extra: S.variables

Examples:

intent://printtemplatefile/#Intent;scheme=plaintext;package=com.zebra.enterpriseservices;S.filename=mytemplate.zpl;S.verbose=true;end

intent://printtemplatefile/#Intent;scheme=plaintext;package=com.zebra.enterpriseservices;S.filename=mytemplate.zpl;S.variables=%TEXTE%:montexte:%CODE%:12345;S.verbose=true;end

### Line Print

This command allows to send raw text to the printer.

The URL virual server is: printsingleline

The text to print is passed using the extra: S.text

Raw text MUST be encoded in base64 if it contains carriage returns.

Examples:

intent://printsingleline/#Intent;scheme=plaintext;package=com.zebra.enterpriseservices;S.text=This is the text to print;S.verbose=true;end

// Print raw text with carriage returns encoded in base64 UTF-16 CRLF

intent://printsingleline/#Intent;scheme=base64encoded;package=com.zebra.enterpriseservices;S.text=//5UAGgAaQBzACAAaQBzACAAbQB5ACAAdABlAHgAdAANAAoAVABvACAAcAByAGkAbgB0AA0ACgBFAG4AYwBvAGQAZQBkACAAaQBuACAAYgBhAHMAZQA2ADQADQAKAFcAaQB0AGgAIABjAGEAcgByAGkAYQBnAGUAIAByAGUAdAB1AHIAbgBzAA0ACgANAAoA;S.standardCharsets=UTF\_16;S.verbose=true;end

### Passthrough Print

Passthrough print allows to send raw data to the printer.

These data will be interpreted by the printer according to its current mode of processing.

The following data can be send to the printer:

* ZPL
* CPCL
* SetGetDo commands
* Raw text

Read PrintConnect user guide for more information on passthrough printing.

The URL virual server is: passthrough

The text to print is passed using the extra: S.data

Example:

intent://passthrough/#Intent;scheme=plaintext;package=com.zebra.enterpriseservices;S.data=CT~~CD,~CC^~CT~^XA~TA000~JSN^LT0^MNW^MTD^PON^PMN^LH0,0^JMA^PR5,5~SD10^JUS^LRN^CI0^XZ^XA^MMT^PW406^LL0200^LS0^FT38,83^A0N,27,28^FH\\^FDPierre d\'ouverture, ^FS^FT38,116^A0N,27,28^FH\\^FDli\\82e au chakra du coeur et ^FS^FT38,149^A0N,27,28^FH\\^FD\\85 v\\82nus apaisante, favorise ^FS^FT38,182^A0N,27,28^FH\\^FDla gu\\82rison des \\82motions^FS^FT107,44^A0N,39,38^FH\\^FDMALACHITE^FS^FO304,29^GB79,0,8^FS^FO13,29^GB79,0,8^FS^PQ1,0,1,Y^XZ;S.verbose=true;end

### Unselect Printer

This command allows to un-select the current Printer.

Once executed, the user won’t be able to print or send anything until a new printer is selected with PrintConnect (or connected using Tap&Pair).

Example:

intent://unselect/#Intent;scheme=plaintext;package=com.zebra.enterpriseservices;S.verbose=true;end

# Appendix

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# Source code

The source code of the Browser URL Intent Service is available on GitHub:

<https://github.com/ltrudu/PrintConnectSample>