

Report No:

AN150

Title:

Configuring a Zebra Label Printer to work with the Equinox ISP-PRO application

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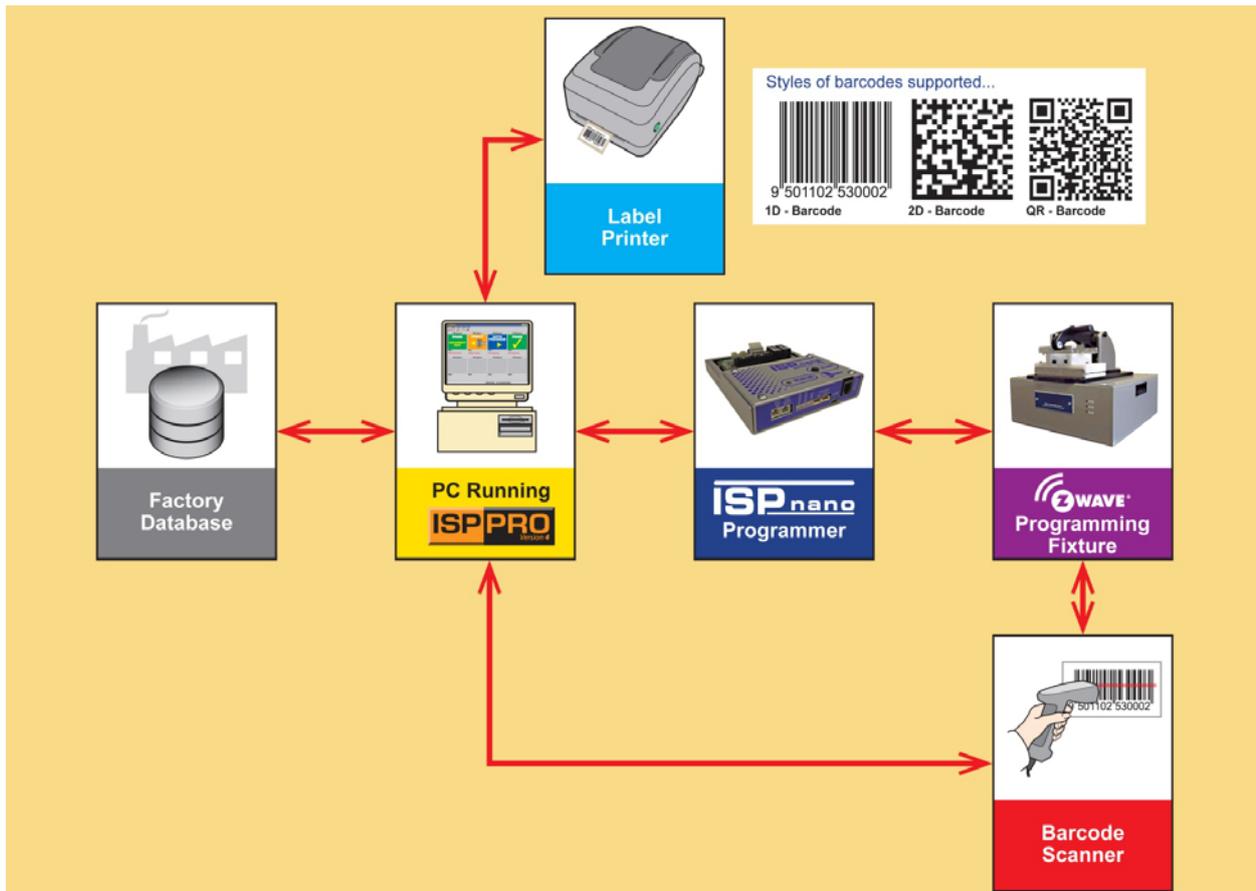
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1.0 Introduction

1.1 Overview

This application note describes how to configure a **'Zebra'** or **'Zebra compatible'** label printer so that it will work with the Equinox **'ISP-PRO'** software application. It is possible to use the **'ISP-PRO'** application to both generate and print any form of **'product label'** via any **'Zebra'** or **'Zebra compatible'** label printer.



This application note explains the following topics in detail...

1. How to connect a **'Zebra'** or **'Zebra compatible'** label printer to a PC running the Equinox **ISP-PRO** software.
2. How to install the required **'software drivers'** to get the printer to work.
3. How to print a **'test label'** from the **ISP-PRO** application.



Please note:

This application note **does NOT** cover the actual design of the **'printed label'** itself using a **'label template file'**. This subject is covered in detail in separate application notes.

1.2 Further information - related manuals and application notes

This application note focuses specifically on how to set up a Zebra label printer to print 'Test labels' using the Equinox ISP-PRO software application.

Please refer to further sources of documentation listed below for more detailed information about printing labels and the Equinox ISP-PRO software application..

User manuals / Programming Guides:

Manual Ref	Title
ISP-PRO	ISP-PRO - User Manual - This manual explains how to install and configure the Equinox ISP-PRO software application.
User Manual	Zebra printer - User Manual - Please consult the User Manual for the specific model of printer which you are using.
Programming Guide	Zebra - ZPL II - Programming Guide - Volume 2 - This is a very useful guide which details the complete ZPL instruction set. - This document can be downloaded from the Zebra website.

Application notes:

The following application notes can be downloaded from the Equinox Technologies website....

Application Note	Title
AN161	SmartStart Labelling for Sigma Z-Wave devices
AN162	Generic ZPL Printer label templates for Zebra printers

1.3 Zebra 'label printer' range overview

Zebra Technologies manufacture a wide range of desktop, industrial and mobile '**label printers**' which are designed to print '**product labels**' in a production environment. They are specially designed printers for printing '**product labels**' which can be affixed to a product that is being manufactured. Depending on the printer type, a selected printer may be able to print 1-D, 2-D and / or 3-D barcodes plus multiple types of texts using many different styles and fonts.



DESKTOP PRINTERS



INDUSTRIAL PRINTERS

For further information about the available range of '**Zebra printers**', please consult the Zebra website at: <https://www.zebra.com>.

1.4 Zebra / ZPL compatible printers

It is also possible to use many other so-called '**Zebra compatible**' printers with the Equinox '**ISP-PRO**' application. As long as the chosen supports the '**ZPL**' or '**ZPL II**' programming language, then it should be possible for the ISP-PRO application to print to this printer. This basically means that any '**ZPL compatible**' label printer should work with **ISP-PRO**. However, final compatibility would need to be checked on a case-by-case basis.

Please note:

1. When selecting a suitable '**label printer**' for your production requirements, please check for the phrases '**ZPL / Zebra compatible**' or '**Supports ZPL language**' in the specification of the printer. If you are unsure which printer to select, please contact Equinox Technologies for further support.
2. The selected printer will probably NOT be running in '**ZPL / Zebra compatibility mode**' as standard. Most third party printers will require either a special '**Select ZPL mode - command sequence**' to be sent to the printer or '**ZPL mode**' to be manually selected via the printer keypad before the printer will operate in '**ZPL / Zebra compatibility mode**'.

1.5 Zebra ZPL language

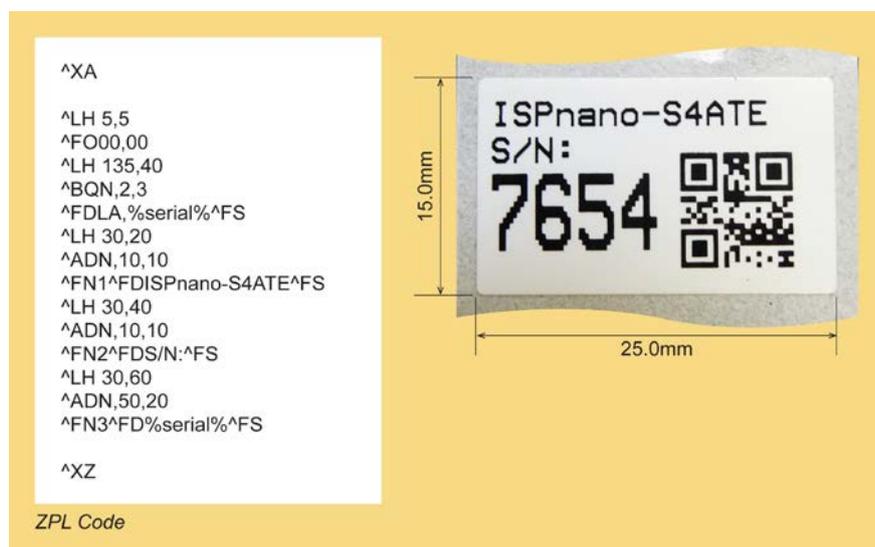
The so-called '**Zebra ZPL programming language**' or '**ZPL language**' for short is a '**page description**' language from Zebra Technologies. It is used primarily for labelling applications with specialised '**label printers**' and has been widely adopted as a standard language for PCs and other equipment to communicate with a '**label printer**'.

The Equinox **ISP-PRO** application does not use the '**ZPL language**' directly to print a label. Instead, ISP-PRO uses textual '**Printing template files**' which it copies to the printer port in order to print a label.

1.6 Label printing template files

The Equinox **ISP-PRO** application uses a special file called a '**label template file**' to define how to print a label. This file is a simple text file and basically contains a list of '**ZPL commands**' which tell the printer what to print and how (text font, style, size, position etc) to print a particular label layout (template).

The illustration below shows the textual contents of a sample '**label template file in ZPL format**' on the left and then the resulting 'printed label' on the right.....



The idea is that all 'fixed text' which is the same for each label is hardcoded in the template file, but then any dynamic data eg. a serial number, date / time stamp etc is passed via a 'macro definition' to the printer. This makes it possible to mix 'fixed text' and 'dynamic parameters' on the same label.

It is beyond the scope of this application note to explain how to create your own '**label template files**'.

A detailed overview of the '**Zebra ZPL programming language**' can be found here...

[https://en.wikipedia.org/wiki/Zebra_\(programming_language\)](https://en.wikipedia.org/wiki/Zebra_(programming_language))

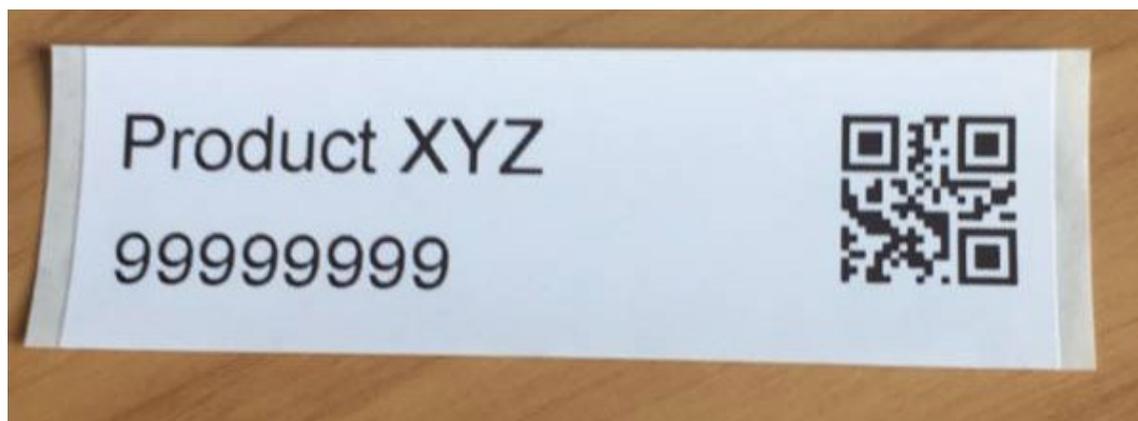
There is also a detailed '**ZPL Programming Guide**' available to download from the Zebra website.

1.7 Supported barcode label types

The Equinox **ISP-PRO** application supports printing of all types of '**barcode labels**' including 1D, 2D and '**QR Code**' style barcodes...



ISP-PRO also supports generation and printing of dynamic parameters such as serial numbers, MAC addresses etc which can be printed as 'human readable text' and also encoded into a 'barcode symbol'....



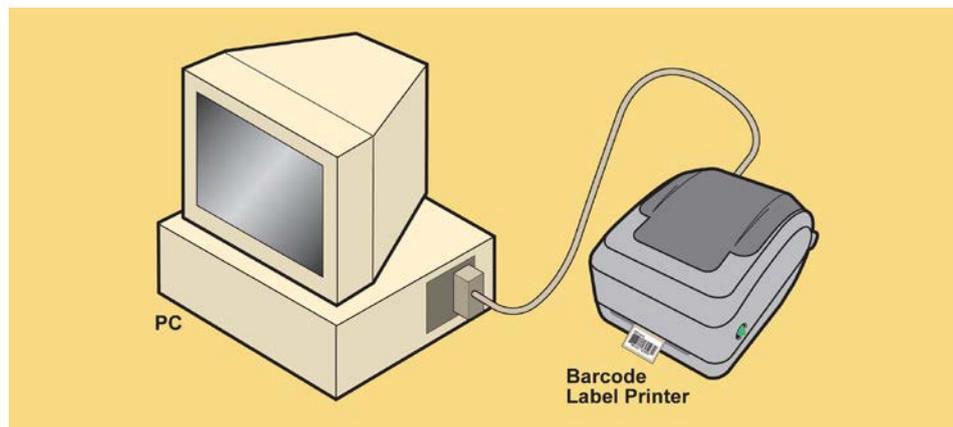
Important note:

The actual generation of the '**Barcode graphic**' itself is done by the '**label printer**' itself and NOT by the Equinox **ISP-PRO** software. The relevant '**ZPL command**' is used in the '**label template file**' to define the '**barcode type**' and also the size / position, and then the printer itself creates and prints the final '**barcode graphic**' onto the label. So when selecting a '**label printer**', it is important to check that the printer actually supports the type and style of '**Barcode graphic**' which you need to print. For example, many cheaper printers do not support printing of '**QR codes**'.

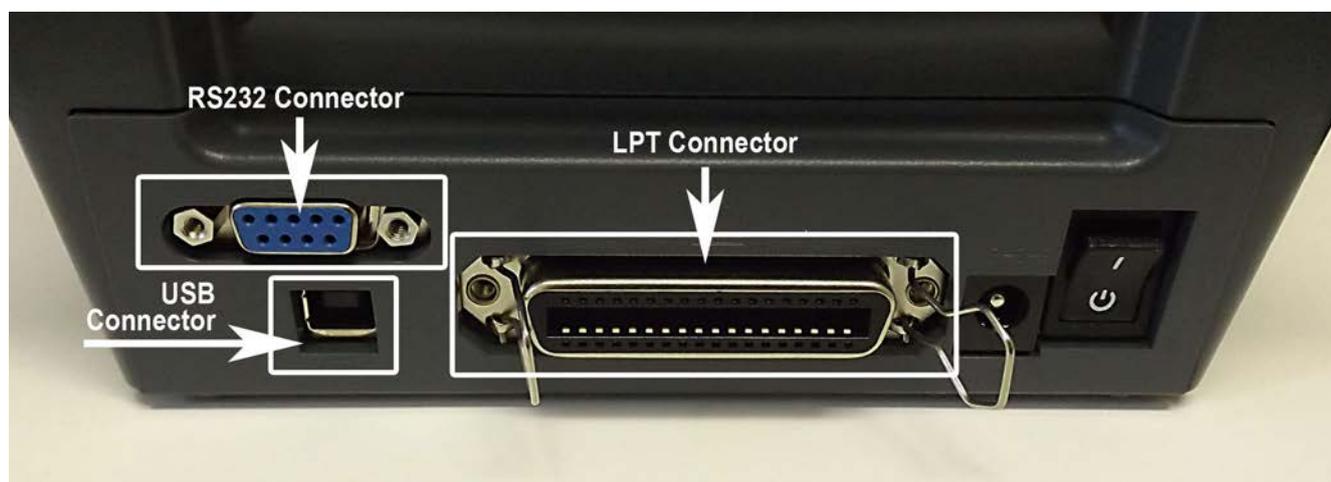
2.0 Connecting the label printer to the PC

2.1 Printer interface overview

It is possible to connect most Zebra label printers to a PC via one of three popular interfaces shown in the table / picture below....



Interface name	Interface description	Comment
LPT	Parallel Port / Centronics interface	No additional ' printer driver ' or other setup is required.
RS232	RS232 interface	No additional ' printer driver ' or other setup is required.
 USB	USB Interface	<ul style="list-style-type: none"> Requires the relevant 'USB printer driver' to be installed for the attached printer. Requires a 'Printer share' to be set up on the PC so that ISP-PRO can communicate with the printer. Requires a permanent 'Port redirect' to be setup from a nominated 'LPTx Port' to the 'Printer share'.



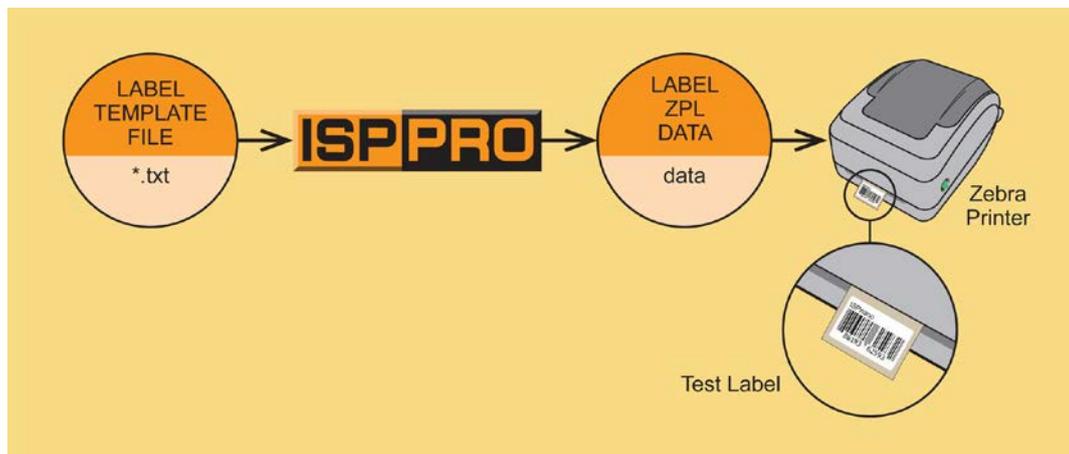
Please note:

1. The '**LPT Port (parallel port)**' connection is actually the simplest way to interface a Zebra printer to a PC and the Equinox ISP-PRO software (and other applications) because no additional '**printer driver**' or other setup is required.
2. Many newer printers now only feature the '**USB interface**' and most new PCs no longer have a '**Parallel Port**' or '**RS232 Port**'. So for many applications, the '**USB interface**' is the only connection option available.

3.0 ISP-PRO - label printing test

3.1 Overview

The instructions in this section explain how to print '**test labels**' using the Equinox ISP-PRO software application.



It is a good idea to check that your label printer is working and that the required '**label templates**' are set up correctly and print correctly BEFORE you run a '**programming script**' in ISP-PRO. To test that the label printing is working OK, it is possible to print both '**PASS**' and '**FAIL**' test labels using ISP-PRO. This section explains how to use ISP-PRO to set up the '**label templates**' and also how to print '**test labels**'.

Further information:

Please refer to the '**ISP-PRO - User Manual**' for in-depth information about how to install, set up and use the ISP-PRO application itself.

3.2 Steps required to print a Test Label (Parallel port connection)

If the printer is connected via the **Parallel (LPT) Port** to the PC, then no additional '**printer driver**' needs to be installed. Please follow the steps below to connect up, configure and finally print a '**test label**' using the attached '**label printer**'...

The steps to print a '**Test label**' are as follows.....

Task #	Task description	Comment / see section
1	Connect the ' label printer ' to the PC Parallel (LPT) Port	Section 2
2	Load the required roll of labels into the printer	Zebra printer User Manual
3	Perform ' Printer calibration ' process to calibrate printer to the labels being used	Appendix 4
4	Configure the ' label printer ' to work in ' Zebra / ZPL emulation mode '.	Appendix 2

5	Select and then configure a suitable <i>'label template'</i>	Section 3.6
6	Print a <i>'Test label'</i> .	Section 3.7

3.3 Steps required to print a Test Label (USB port connection)



If the printer is connected via the **USB Port** to the PC, then it is necessary to install a dedicated *'printer driver'* and then set up a *'Printer share'* and a *'Parallel Port redirect'*.

Please follow the steps below to connect up, configure and finally print a *'test label'* using the attached *'label printer'*...

Task #	Task description	See Section
1	Connect the <i>'label printer'</i> to the PC	Section 2
2	Load the required roll of labels into the printer	Zebra printer User Manual
3	Perform <i>'Printer calibration'</i> process to calibrate printer to the labels being used	Appendix 4
4	Install the required <i>'Windows printer driver'</i> for the printer	Appendix 1 section 2.1
5	Set up a <i>'printer share'</i> to the installed printer.	Appendix 1
6	Set up the <i>'Printer Port'</i> to <i>'Virtual USB port'</i>	Appendix 1
7	Create a <i>'Parallel Port redirect'</i> to an <i>'LPTx port'</i>	Appendix 1
8	Configure the <i>'label printer'</i> to work in <i>'Zebra / ZPL emulation mode'</i> .	Appendix 2
9	Select and then configure a suitable <i>'label template'</i>	Section 3.6
10	Print a <i>'Test label'</i> .	Section 3.7

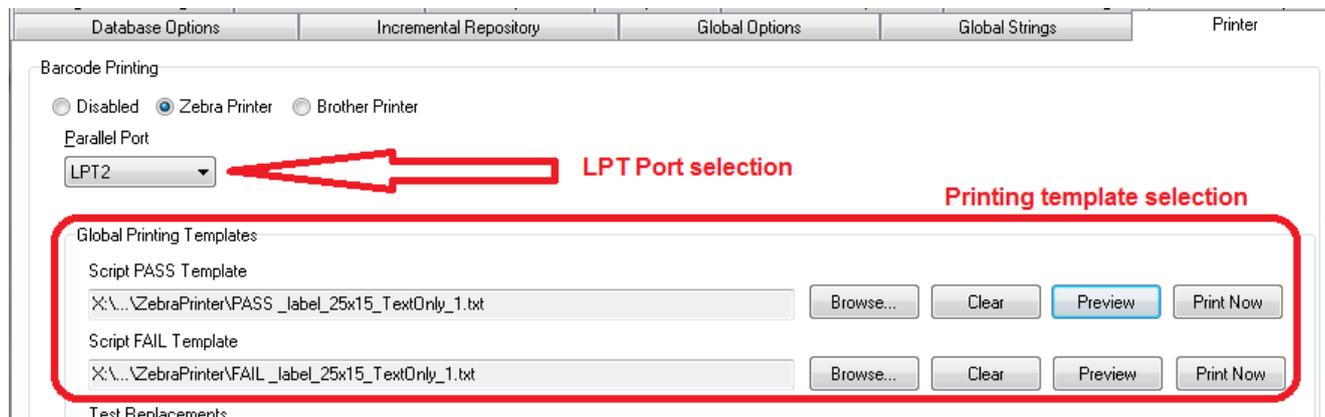
3.4 ISP-PRO - Printer setup page

The '**Label printing**' functionality in ISP-PRO can be enabled as follows....

- Start ISP-PRO
- Log into ISP-PRO (password: equinox)
- Click the '**Setup**' icon on the top icon bar in ISP-PRO
- Select the '**Printer**' tab
- If this is a virgin session of ISP-PRO, then no printers will be setup and the following screen will be displayed....



- If you plan to print via a '**Zebra printer**' or '**Zebra / ZPL compatible printer**', then select the '**Zebra printer**' option.
- The following screen will now be displayed....



3.5 Selecting the correct LPT port in the ISP-PRO printer setup

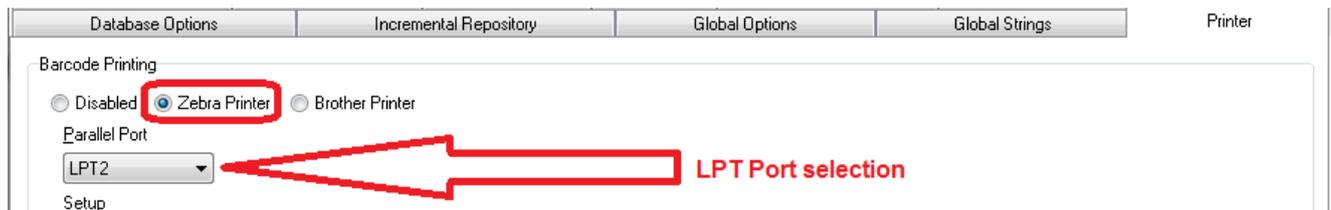
In order for ISP-PRO to communicate with the attached printer, the printer must be attached to the PC via either an LPT (parallel port), RS232 (serial) or USB connection - see section 2.



Important note for 'USB Connection'....

If the printer is attached to the PC via a USB connection, then a series of steps must be performed **BEFORE** ISP-PRO will be able to "see" the printer. Please see Appendix 1 for further details and a worked example for a **Zebra GK420t** label printer using a **'USB connection'**.

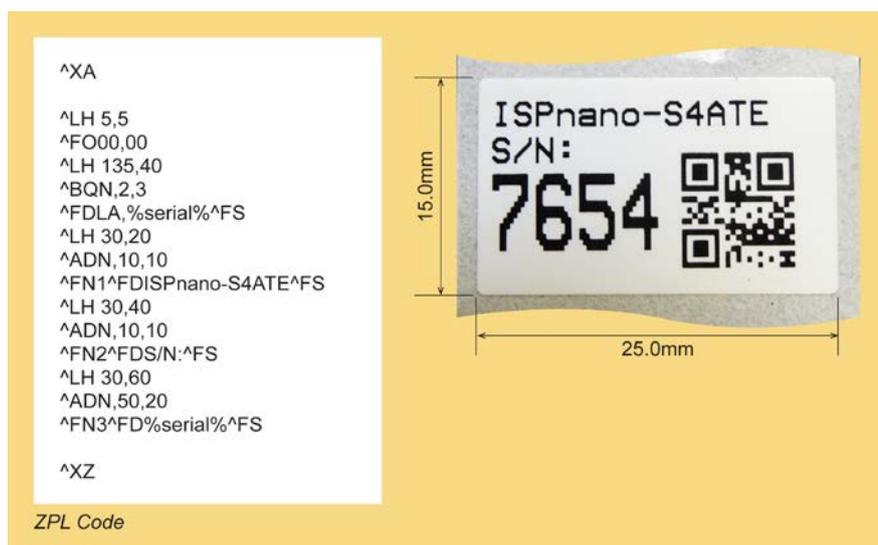
Once the relevant **'LPT (parallel) port'** is set up, select the correct **'Parallel port'** from the drop-down menu.....



It is now possible to print a **'Test label'** using one of the default **'Label templates'** - see next section for instructions.

3.6 Introduction to 'label printing templates'

ISP-PRO uses a special file called a **'Printing template file'** to define the layout and content of the **'printed label'** which is to be printed via the attached printer.



Equinox supply some default / example **'Printing template files'** with most **'Script file'** releases.

These templates are set up for a certain size of label and so will probably need to be manually adjusted before they will work with your printer.

The default '*Printing template files*' can usually be found in the following locations(s).....

Script type	Template file location	Comment
Normal scripts	<i>scripts\ZebraPrinter</i>	A set of example ' <i>label template files</i> ' for use with any normal script can be found in this folder.
Z-Wave SmartStart scripts	<i>scripts\ZWSmartStart</i>	This is a special collection of ' <i>label template files</i> ' for use with the Z-Wave <i>SmartStart</i> programming scripts.

Instructions:

- Locate the relevant '*Printing template file(s)*'
- Manually edit the file in a text editor so that that the '*ZPL commands*' match your desired label dimensions, font types / sizes and position etc.
- Re-save the '*Printing template file(s)*'

3.7 Selecting the PASS / FAIL label printing templates

The '*Global Printing Template*' section of the '*Printer*' setup screen allows you to set up which '*Printing template file*' is used when a script passes (PASS) or fails (FAIL)...

Global Printing Templates

Script PASS Template

X:\...\ZebraPrinter\PASS_label_25x15_TextOnly_1.txt Browse... Clear Preview Print Now

Script FAIL Template

X:\...\ZebraPrinter\FAIL_label_25x15_TextOnly_1.txt Browse... Clear Preview Print Now

Important note:

Some '*Script Files*' will automatically select a hard-coded '*Printing template file*' so the setting in this '*Global Printing Template*' will then be ignored.

3.8 Printing a 'PASS' test label

ISP-PRO will print a copy of the selected '**PASS label**' using the selected '**PASS label printing template**' when the '**programming script**' executes and result is a successful (PASS).

To select the script '**PASS**' printing template....

- Click the '**Browse**' button next to the '**Script PASS template**' field.



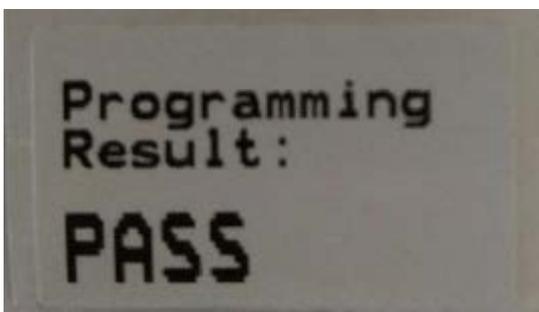
- Browse to and select the required '**Printing template file**'.
- For this example the '**PASS_label_25x15_TextOnly_1.txt**' label template has been selected. This is a very simple text only label - size 25 x 15 mm.
- This label should print OK on most Zebra label printers with any size of label. However, it may need to be resized in the template to match the actual size of the label which you are using in your printer.

To print a '**PASS - Test Label**'.....

- Make sure the attached printer is connected, powered on and '**On-line**'.
- Click the '**Print Now**' button



- ISP-PRO should now print a '**PASS label**' from the attached printer....



Please note:

If you get an error message instead or the label does not actually print, please check the [Printer Troubleshooting Guide](#) for further assistance.

3.9 Printing a 'FAIL' test label

ISP-PRO will print a copy of the selected **'FAIL label'** using the selected **'FAIL label printing template'** when the **'programming script'** executes and result is **'FAIL'**.

To select the script **'FAIL'** printing template....

- Click the **'Browse'** button next to the **'Script FAIL template'** field.



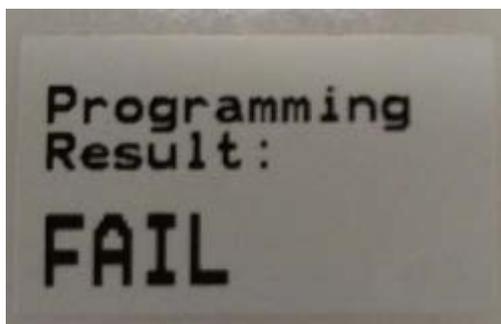
- Browse to and select the required **'Printing template file'**.
- For this example the **'FAIL_label_25x15_TextOnly_1.txt'** label template has been selected. This is a very simple text only label - size 25 x 15 mm.
- This label should print OK on most Zebra label printers with any size of label. However, it may need to be resized in the template to match the actual size of the label which you are using in your printer.

To print a **'FAIL - Test Label'**.....

- Make sure the attached printer is connected, powered on and **'On-line'**.
- Click the **'Print Now'** button



- ISP-PRO should now print a **'FAIL label'** from the attached printer....



Appendix 1 - Configuring a USB label printer



1.0 Overview of steps to configure a USB connected printer

This section describes how to set up a **'Label printer'** which is **'USB connected'** to a PC running the Equinox **ISP-PRO** software. The printer used for this example is the **'Zebra GK420t'** desktop label printer. However, the instructions should work for most other Zebra printers.

The steps required to configure a **'USB connected'** printer to work with the Equinox **ISP-PRO** software are as follows...

1. Connect printer to USB port of the PC
2. Power up the printer
3. Install the **'Windows Printer Driver'** for attached printer
4. Check that the **'Windows Printer Driver'** has been installed successfully
5. Create a **'Printer Share'** for the installed printer
6. Create a permanent **'redirect LPTx port'** to the **'Printer Share'**.
7. Ensure that the printer has already been set to operate in **'Zebra / ZPL emulation mode'**.
8. Test the print setup by printing a **'Test Label'** using the ISP-PRO **'Printer'** screen.

Each of the above steps is explained in detail in section 2.

2.0 Instructions to configure a USB connected printer

This section explains the steps to install and configure a **'USB connected'** printer so that it will work with the Equinox **ISP-PRO** software application.

Instructions:

1. Connect a USB cable from the USB port of the printer to a spare USB port on your PC.
2. Power up the printer

2.1 Installing the 'Windows Printer Driver'

This section explains how to install the **'Windows Printer Driver'** for the attached printer.

Instructions:

1. Automatic printer detection / driver installation

If the printer is automatically detected by Windows, then follow the on-screen prompts to download and install the required **'printer driver'**.

2. Manual printer driver installation

If the printer requires the driver to be installed manually, then follow the steps detailed below:

- i. Locate the required '**printer driver**' either on the CD-ROM which came with the printer or on the printer manufacturer's website.
- ii. Install the '**printer driver**' manually.

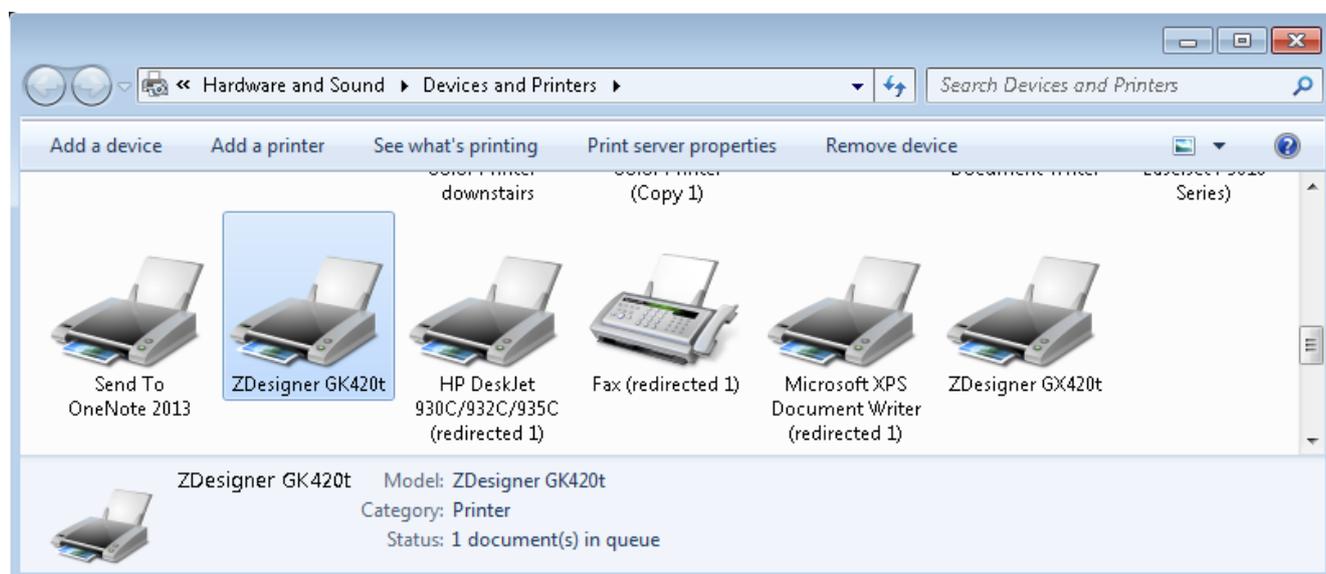
2.2 Checking the 'Windows Printer Driver' has installed OK

This section explains how to check that the '**Windows Printer Driver**' has installed properly.

Instructions:

1. From the Windows '**Start menu**', select '**Devices and printers**'

- The printer which you have just installed should now be displayed e.g. '**ZDesigner GK420t**' - see screenshot below....



2. Performing a '**Test Print**'....

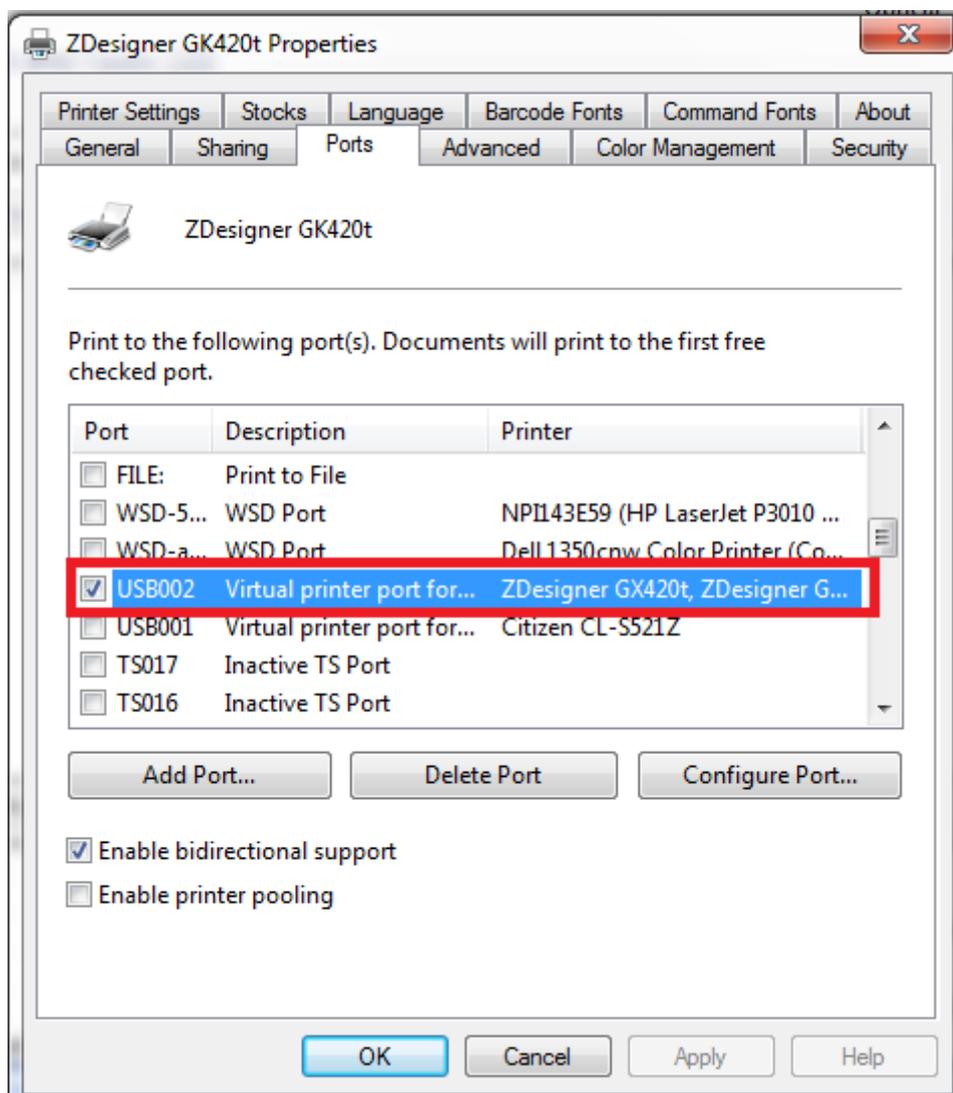
- Depending on the printer and label setup, it may be possible to print a '**Test page**' to the attached printer.
- Double-click the '**Printer icon**'
- Select the '**General**' tab
- Click the '**Print Test Page**' button
- If the printer is setup correctly, it should now attempt to print a '**Test label**'.

2.3 Setting the correct 'Port' for the printer

As Zebra printers do not support printing directly to the '**USB port**', then it is necessary to set up printing to a '**Virtual USB port**' instead. This is automatically installed when you install the '**Zebra printer driver**'.

Instructions:

- Open the '**Printer Properties**' for the printer by double-clicking the '**ZDesigner GK420T**' icon in the '**Devices and printers**' menu.
- Select the '**Ports**' tab
- Scroll down the list until you see '**Virtual printer port for USB**' with the '**Printer**' shown as '**ZDesigner GX420**' - see screenshot below.....



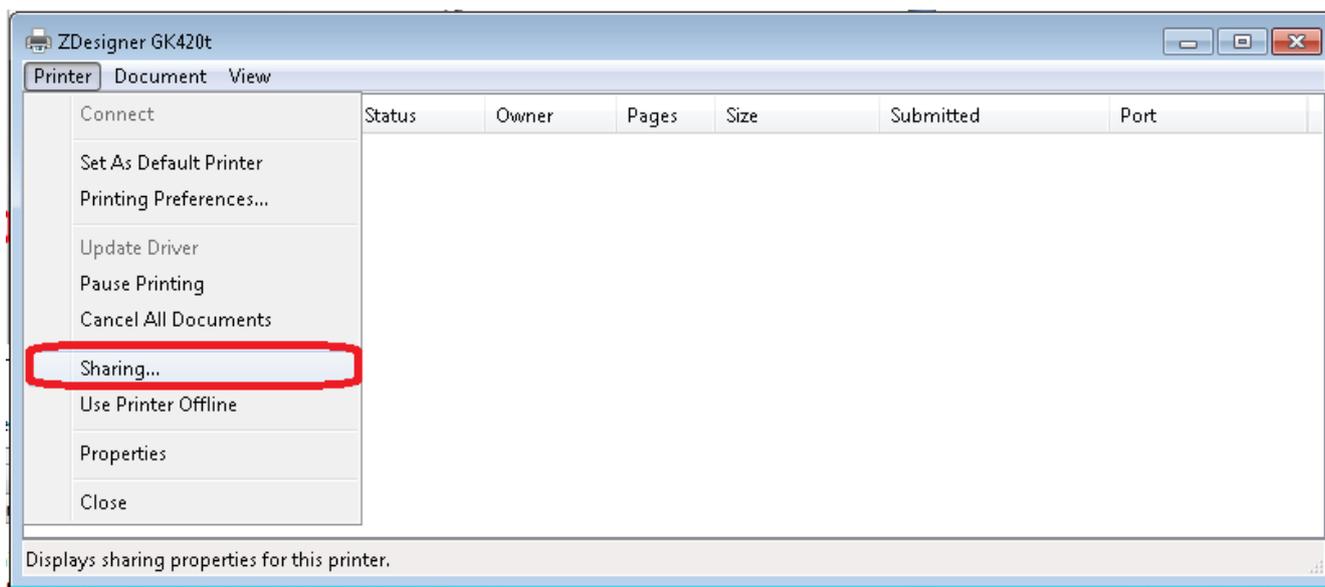
- Tick the check box to select this port.
- Click '**OK**' to save this setting.
- The '**printer driver**' will now direct all data to this '**Virtual printer port**'.
- You should now be able to print to the printer.

2.4 Creating a 'Printer share' (shared printer)

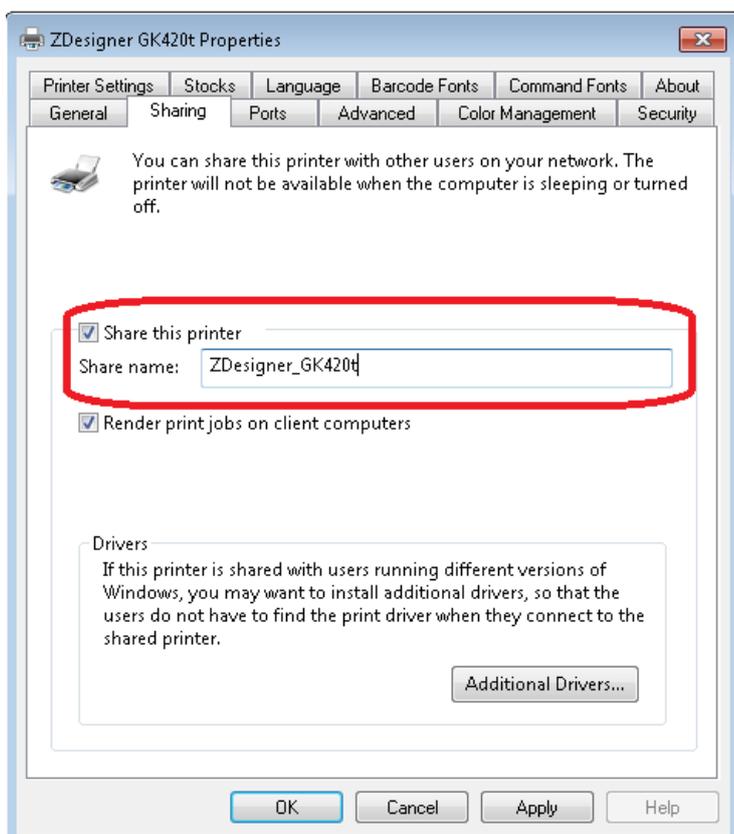
This section explains how to create a '**Printer Share**' for the installed printer.

Instructions:

- Open the '**Printer Driver**' by double-clicking the icon of the relevant printer
- Select the '**Printer**' option and then the '**Sharing**' option from the drop-down list...



The '**Sharing**' tab should now be displayed....



- Tick the **'Share this printer'** tick box.
- Type a suitable **'Share name'** for this **'Printer share'** e.g. **'ZDesigner_GK420t'**

Important note:

The **'Share name'** must not contain any spaces otherwise the next step of creating the **'redirected LPTx port'** will fail.

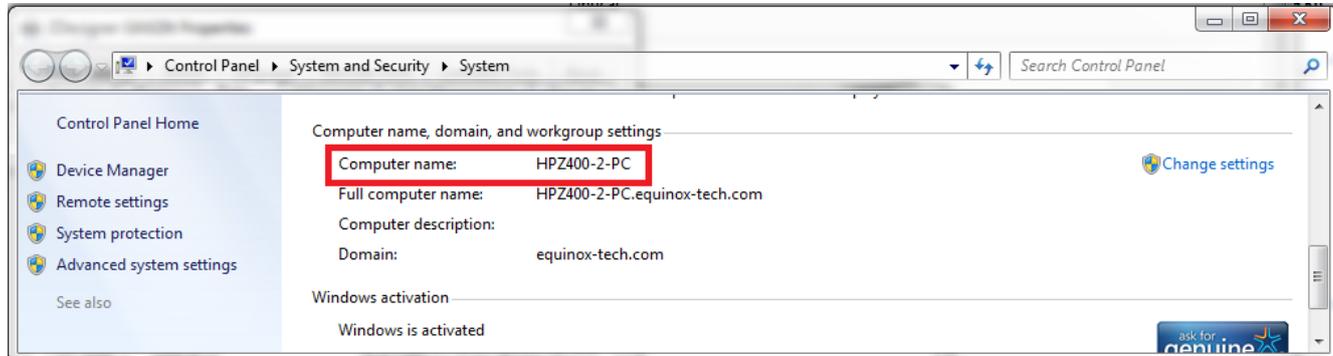
- Click **'OK'** to save this setting
- There is now a permanent **'Printer share'** called **'ZDesigner_GK420t'** which points to the attached printer.

2.5 Creating a 'Parallel Port redirect' to an 'LPTx port'

This section explains how to create a permanent **'redirect LPTx port'** to the **'Printer Share'** which you created for your attached printer. This will allow ISP-PRO and any other application to send data to the attached printer by copying it to a specified **'LPTx port'**.

Instructions:

1. Find out what your **'Computer Name'** is...
 - From the Windows icon, select **'Start'** and then right click over **'Computer'**
 - The 'System setup' for your PC should now be displayed....



- Make a note of the **'Computer Name'**.
 - In this example, the **'Computer Name'** is: **'HPZ400-2-PC'**
2. Launch a **'Command window'**....
 - Select **'Start'** from the Windows icon and then type **'cmd'** and then hit the **'carriage return'** key.
 - A command window should now open..
 3. Copy the following instruction into the **'Command window'**....

NET USE LPTx \\computername\printersharename /PERSISTENT:YES

where:

- **'LPTx'** is the LPT port which you want to redirect the 'printer share' to e.g. 'LPT2'
- **'computername'** is the **'Computer Name'** which you looked up in the previous step.

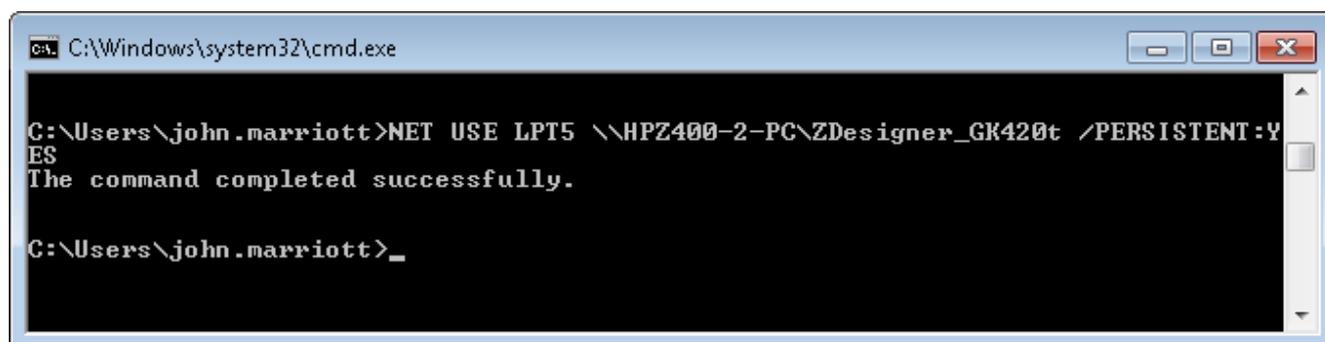
- **'printersharename'** is the name of the **'Printer share'** e.g. **'ZDesigner_GK420t'** which you previously set up for your attached printer.
- **/PERSISTENT:YES** - this command makes this setting permanent so it is not reset after the PC is rebooted.

So for this PC and printer, the following command should be typed in the 'command window'...

NET USE LPT5 \\HPZ400-2-PC\ZDesigner_GK420t /PERSISTENT:YES

...and Windows should respond with this confirmation message...

"The command completed successfully."



```
C:\Windows\system32\cmd.exe

C:\Users\john.marriott>NET USE LPT5 \\HPZ400-2-PC\ZDesigner_GK420t /PERSISTENT:YES
ES
The command completed successfully.

C:\Users\john.marriott>_
```

4. The specified **'LPTx'** port is now permanently redirected to the specified **'Printer share'**.

So for the example in step (3)....

NET USE LPT5 \\HPZ400-2-PC\ZDesigner_GK420t /PERSISTENT:YES

The **'LPT5'** parallel port is now permanently redirected to the specified **'Printer share'** called **'ZDesigner_GK420t'**.

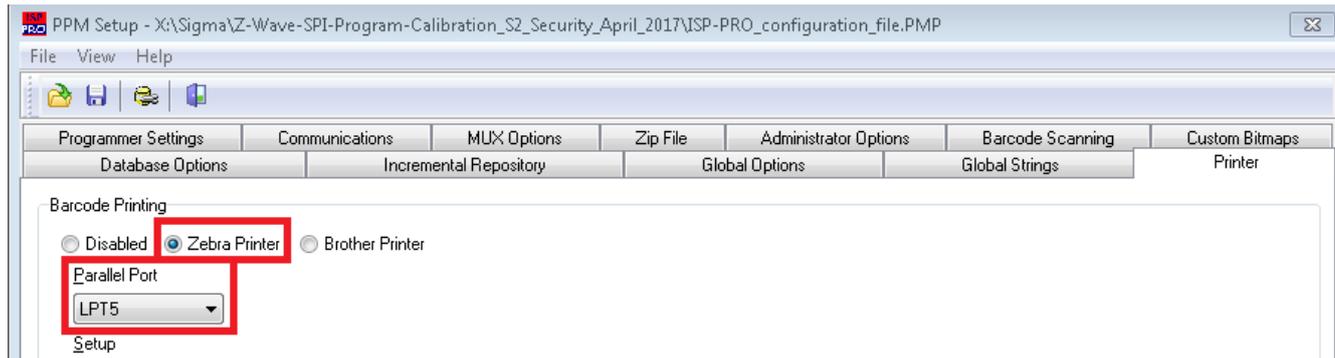
5. It is now possible for any Windows or console application to print to this redirected **'LPT5'** parallel port.

It is also possible to simply copy a file to the specified **'LPT5'** parallel port and it will be automatically sent to the attached printer.

2.6 Printing a 'Test Label' using the ISP-PRO 'Printer' screen

This section explains how to print a **'Test label'** using the ISP-PRO **'Printer'** screen.

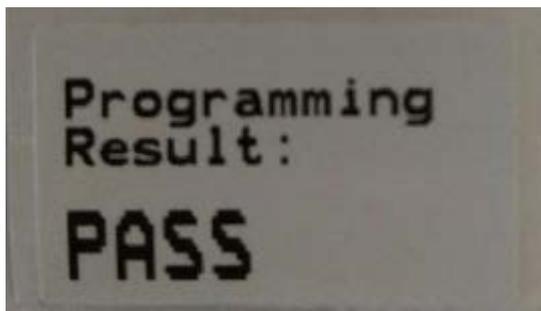
1. Follow the instructions in section 2.2 to setup the **'Label printing'**.
2. Select the correct **'LPT (parallel) port'** which you previously set up the **'Parallel port redirect'** for, e.g. **'LPT5'** for the example in this application note.



3. Follow the instructions to set up the correct **'Label templates'** for the attached printer.
4. Click the **'Print Now'** button to perform a test print.



If the **'Parallel port redirect'** is set up correctly, then the following message should be displayed and a **'Test label'** should now be printed.....



If the label fails to print or prints incorrectly, please see **'Appendix 3 – Printer Troubleshooting Guide'** for further assistance.

Appendix 2 - Configuring a Zebra compatible printer to run in Zebra/ZPL compatibility mode

1.0 Overview

This section describes how to set up a third-party **'Label printer'** (not made by Zebra) so that it operates in **'Zebra / ZPL compatibility mode'**. This setup must be carried out before ISP-PRO will be able to print any labels to the printer as ISP-PRO uses the **'ZPL language'** to send the **'label template'** to the printer.

Please note:

The selected printer will probably NOT be running in **'ZPL / Zebra compatibility mode'** as standard. Most third party printers will require either a special **'Select ZPL mode - command sequence'** to be sent to the printer or **'ZPL mode'** to be manually selected via the printer keypad before the printer will operate in **'ZPL / Zebra compatibility mode'**.

2.0 Using a 'command sequence' to select 'ZPL compatibility mode'

Many third party label printers (and also some Zebra printers) require a special **'command sequence'** to be sent to the printer in order to select **'ZPL / Zebra compatibility mode'**.

Please consult the **'User Manual'** of your printer to find out how to carry out this sequence.

3.0 Manually selecting 'ZPL compatibility mode'

Some third party label printers (and also some Zebra printers) can be configured via the keypad on the front panel of the printer to select **'ZPL / Zebra compatibility mode'**. This is usually a one-time setup and the printer then remembers this setting even after being power-cycled.

Please consult the **'User Manual'** of your printer to find out how to carry out this sequence.

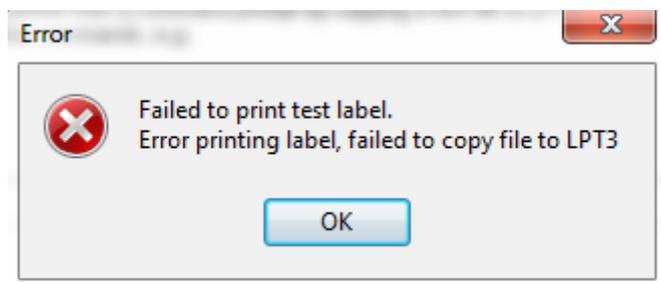
Appendix 3 – Printer Troubleshooting Guide

1.0 Overview

This section describes the various failure modes when printing labels and how to solve these printing issues.

1.1 Incorrect LPT (parallel port) selected

If the incorrect '**LPT (parallel port)**' is selected in the ISP-PRO '**Printer**' setup screen, then you will receive the following error message when you attempt to print a label.



Important note:

This error message may also be displayed if a '**Printer Port redirect**' has not been set up to point to the '**Printer share**' used for your attached printer.

1.2 Printer Port redirect not set up correctly

If your printer is connected via the USB port and a '**Printer Port redirect**' has not been set up to point to the '**Printer share**', then ISP-PRO will not be able to "see" the '**LPT port**' which you have selected in ISP-PRO.

To fix this problem, please follow the instructions detailed in [appendix 1](#).

1.3 No label is actually printed

If ISP-PRO reports that the '**Test label**' was sent to the printer but then no actual label is printed, please check the following possible causes:

1. Printer cable not plugged in
2. Printer driver is not installed / configured correctly.
3. Printer is not switched on.
4. The printer is '**Offline**'.
 - Check that the printer '**Status Light**' is '**Solid GREEN**' in colour.
5. Check that the printer has been calibrated to the labels which are loaded in the printer.
 - The '[printer calibration procedure](#)' is required so the printer knows the dimensions of the currently loaded labels.

6. The labels in the printer are not loaded correctly.
7. The **'label template file'** is not compatible with the attached printer.
8. The attached printer has not been pre-configured to operate in ['Zebra / ZPL emulation mode'](#).
9. The **'Printer Port'** in the **'Printer driver'** has been set up correctly on the **'Printer - Properties - Ports'** menu.

1.4 Label is printed but information is missing from it

If you print a label from ISP-PRO and the printer does print label but this label is either blank or only contains part of the information you expected, then the most likely cause is that the **'label template file'** is not configured for the correct size of label.

Fix:

1. The positioning of the text blocks and size of label must be correctly setup in the **'label template file'** to match the actual labels you have loaded in the attached printer.
2. The printer may need calibrating to the labels being used - see the ['Printer Calibration'](#) section.

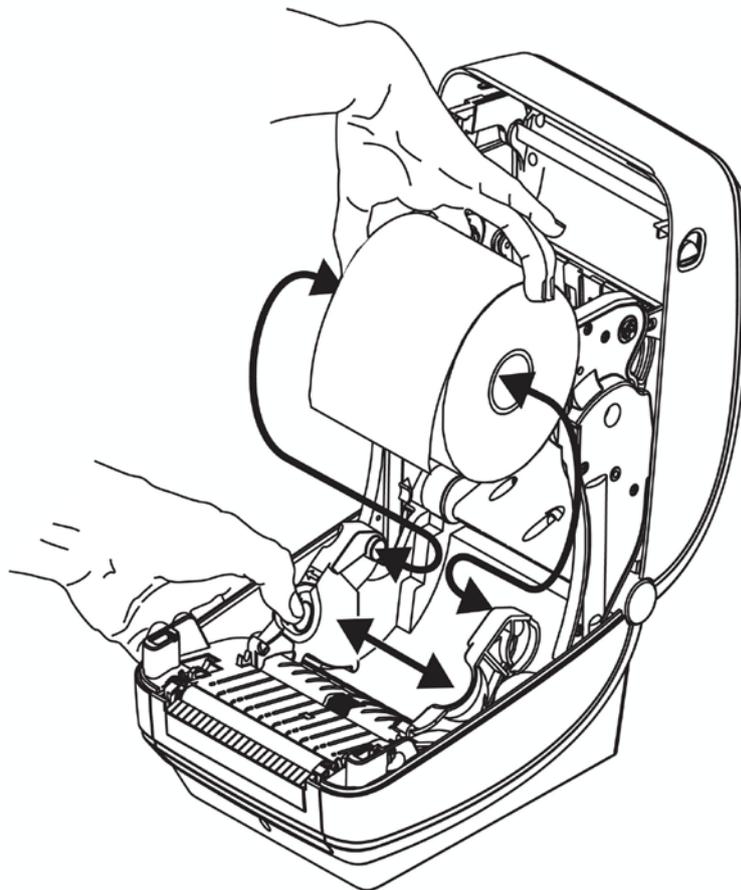
Appendix 4 – Loading labels and Printer Calibration

1.0 Overview

This section describes how to load a roll of '*printer labels*' into a Zebra label printer and then perform the '*Printer calibration*' process which is required to set up the printer for the required label type and size.

1.1 Loading a roll of labels into the printer

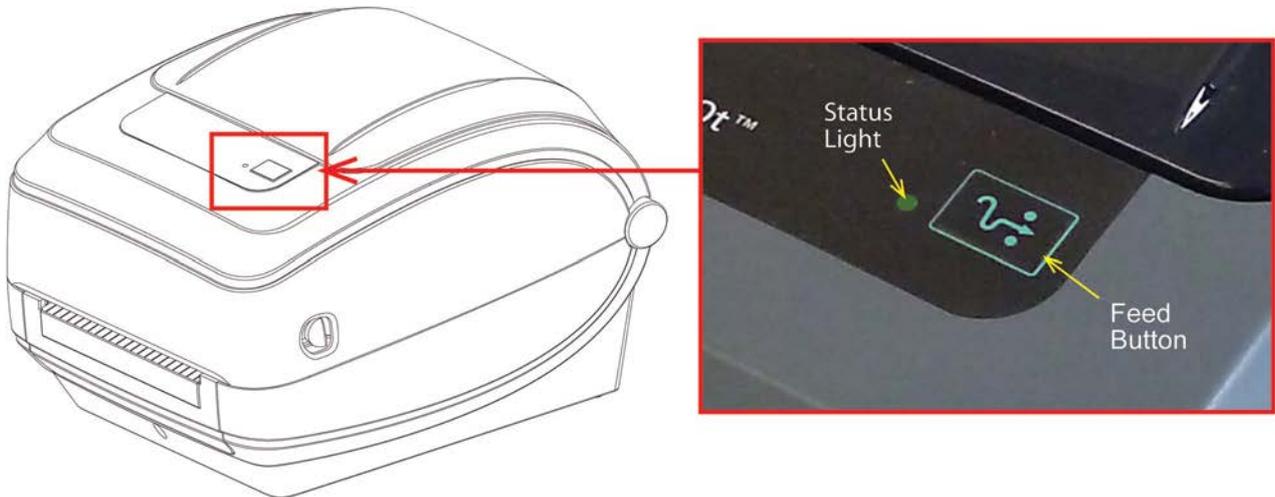
The illustration below shows how a roll of '*printer labels*' is loaded into a Zebra printer....



Instructions:

1. Make sure the roll of labels you are loading into the printer has a suitable spindle fitted which allows the roll of labels to be used with the printer.
2. Open the printer lid.
3. Pull the two flanges on the printer shown in the diagram gently towards the outside of the printer and position the roll of labels in the centre of the printer.
4. Feed the first 1 or 2 labels facing upwards out the end of the printer.
5. Close the printer lid. (Make sure you here a click as the lid locks shut).

- The printer **'Status Light'** should now go to **'solid green'** colour to indicate that it is on-line and ready to print.

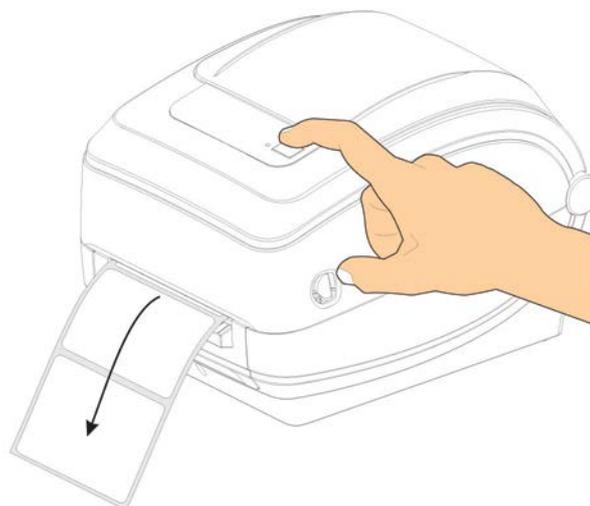


1.2 Performing 'Printer calibration' to the loaded label roll

Once the roll of labels has been loaded into the printer, it is necessary to perform the **'Printer calibration'** process which sets up the printer for the required label type and size. This step is required so that the printer can detect the actual height and width of each label which it then uses to calculate where it can print on the physical label.

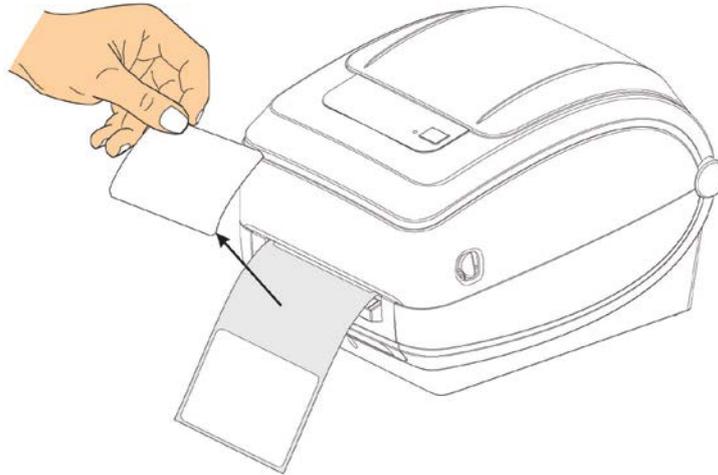
Instructions:

- Make sure there is at least one label already protruding from the printer.
- Hold down the **'Feed Button'** on the top of the printer for at least 10 seconds - see illustration below...



- The printer **'Status Light'** should go from a **'solid green'** colour to **'flashing orange'** colour.

- The printer should then automatically perform the '**Printer calibration**' process and it will print out e.g. 5 - 10 labels with configuration information printed on them.



- Check that the printed labels look correct, text is visible and printed within the label.
--> The printer is now '**calibrated**' to the label size / type which have been loaded into the printer.
- The printer '**Status Light**' should now go to '**solid green**' colour to indicate that it is on-line and ready to print.

