



# Cynclly

FeneVision® Best Practice

## ZPL Basics (BP0087)

---

| Revision | Date       | Description of Change      | Revised By |
|----------|------------|----------------------------|------------|
| A        | 04/14/2016 | Creating the Best Practice | MC         |
| B        | 09/26/2018 | Reformatted                | KED        |
|          |            |                            |            |
|          |            |                            |            |

### Introduction

This document explains the process of how ZPL files are used in FeneVision. ZPL stands for Zebra printer language, and FeneVision uses ZPL label files that can only be printed on Zebra brand printers. This document will explain common commands that are used, describes label contents with a label/command example, the measurement system in which labels are adjusted by, and some additional tips and tricks relating to ZPL label printing.

### Using

Once the basics of ZPL is reviewed, you will be able to understand what common ZPL codes mean, describes label contents with a label/command example how ZPLs are measured, and extra knowledge on ZPLs.

### Common ZPL Codes

- ^XA – Start Format
  - Used to start the definition of a ZPL label.
- ^XZ – End Format
  - Used to end the definition of a ZPL label.
- ^LH – Label Home
  - Used to set the position of the origin (upper left hand corner of the label).
  - Applies to the entire label.
  - Commonly used for a margin around the label.
  - **Should not** be used to account for printer alignment.
- ^CF – Change Font
  - Sets the font and font size for the text.
  - Affects any text after the command.
  - Can be used multiple times.
  - Use ^CFO (zero) to use a scalable font (most flexible), followed by the height and width in dots.
- ^FO – Field origin
  - Used to set the origin (upper left hand corner) of the field containing the data (text, barcode, graphics, etc.)
- ^FB – Field Block
  - Use to define the properties of the text contained within.
  - Width (in dots), max lines, space between lines (in dots), text justification, hanging indent (in dots).
- ^FD – Field Data
  - Text to be printed
- ^FS – Field Separator
  - Ends the field definition

- ^BC – Code 128 Barcode
  - Prints a barcode containing the information within the field data.

## Describing Label Contents

|            |             |                  |                |
|------------|-------------|------------------|----------------|
| ^XA        | !PRODDATE!  | !ORDERNO!        | !CUSTOMER,10!  |
|            | !PARTNO,15! | !DIMENSIONS!     | !OPTIONS,10!   |
| ^LH40,0    | !LINEITEM!  | !XOFY!           | !PTANDATTR,10! |
| ^CF0,30,30 | !SCHEDID!   | Batch: !BATCHID! | BIN: !BIN!     |



```

^FX***COLUMN ONE***^FS
^FO0,0^FB200,^FD!PRODDATE!^FS
^FO0,30^FB200^FD!PARTNO,15!^FS
^FO0,60^FB200^FDLine #: !LINEITEM!^FS
^FO0,90^FB200^FDSched: !SCHEDID!^FS

```

```

^FX***COLUMN TWO***^FS
^FO250,0^FB350^FD!ORDERNO!^FS
^FO250,30^FB350^FD!DIMENSIONS,25!^FS
^FO250,60^FB350^FD!XOFY!^FS
^FO250,90^FB350^FDBatch: !BATCHID!^FS

```

```

^FX***COLUMN THREE***^FS
^FO600,0^FB200,1^FD!CUSTOMER,10!^FS
^FO600,30^FB200^FD!OPTIONS,10!^FS
^FO600,60^FB200^FD!PTANDATTR!,10^FS
^FO600,90^FB200^FDBin: !BIN!^FS

```

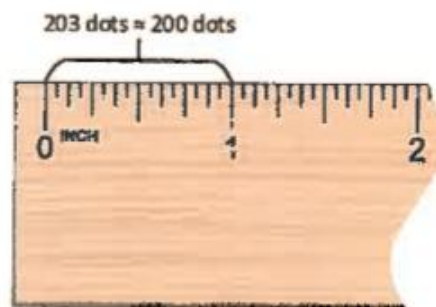
```

^FX***BARCODE***^FS
^FO250,120^BCN,30,N,N,N^FD!BARCODE!^FS

```

^XZ

## Dots per Inch (DPI)



FeneVision ZPL labels are designed to be used with a 203 dpi printer. The following conversions assume a 203 dpi printer. 300dpi printers are also available.

1/8 in = 25 dots  
 1/4 in = 50 dots  
 1/2 in = 100 dots  
 1 in = 200 dots  
 1 1/2 in = 300 dots  
 2 in = 400 dots

## ZPL Tips

- Use the Reports\_GlobalDirectory to store the ZPL files in one central location instead on each machine.
- It is recommended that the Microsoft “generic text only” print driver be used for Zebra printers when printing ZPL labels. Labels will print faster than if a driver with additional overhead is used.

Print settings will also be maintained on the printer itself which makes print settings easier to manage.

- Use short attribute names for use on labels. Space is critical!
- When editing information for ZPLs, make sure you are using Notepad.