



Intermec



User's Guide

ZSim

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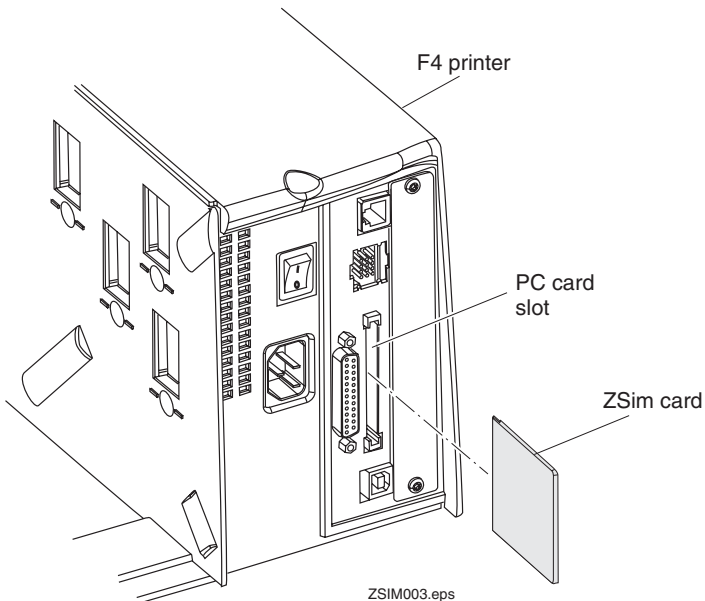
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What is the ZSim?

The ZSim is a Zebra™ Simulation program that allows you to use your legacy Zebra programs on an Intermec EasyCoder 501XP, 601XP, or F4 printer with the Fingerprint programming language. All you need to do is download the ZSim program onto your printer, configure a few settings, and start sending Zebra commands.

Loading the ZSim on Your Printer

- 1 Turn off your printer.
- 2 Insert the ZSim card in the PC card slot on the back of your printer. The card should slide easily into place.



Make sure you insert the card properly by looking at the arrows on the card. Do not use force to insert the card.

Attention: Assurez-vous que vous insérez la carte correctement en regardant les flèches sur la carte. N'employez pas la force pour insérer la carte.

3 Turn on your printer.

The download process starts automatically. Your printer screen will display a series of messages including “Initializing,” “Updating,” “Formatting C,” and “Copying Files.”

4 Turn off the printer and remove the ZSim card when the screen prompts you.

Configuring the ZSim

The first time you turn on your printer after loading the ZSim program, you will be prompted to go through a series of configuration screens to optimize the printer settings. After setting your initial configuration, you can access the ZSim Configuration menu at any time by pressing **Setup**.

Navigating the ZSim Configuration Menu

While you are going through the ZSim Configuration menu, use the following table to help you navigate.


Key	Description
Setup	Open and close the ZSim or Fingerprint menu ZSim password: 1138 Fingerprint password: 8311
F1	Cancel input Back one level in the menu
F2, F3	Select ON or OFF, YES or NO
F3	In online mode: displays communication parameters
F4	Move up one level in the menu
F5	Move down one level in the menu
Enter	Accept input Select the item in the menu
Feed	Feed one label
Pause	Pause
C	Backspace, select ON or OFF, YES or NO
. (Dot)	Sign, switch between + and -

Configuring the ZSim for the First Time

After you power on your printer, the ZSim menu automatically steps you through the Initial Setup Configuration menu.

- 1 Turn on your printer.


The printer steps through an initialization process that ends with the printer displaying “Starting Up Please Wait!” before it tries to find the media. Once the printer finds the media length, the first Configuration menu item appears:



```
Initial Setup
Enter=Start
```

- 2 Step through the Initial Setup Configuration menu changing any incorrect values. You can view an illustration of the Initial Setup Configuration menu on the next page.

When you are through setting the values, the printer prints a configuration label and prompts you to save the configuration. The Ready light now turns on and the printer screen displays a message similar to the following message:



```
ZSIM X.XX
Serial
```

You are now in ZSim Online mode.

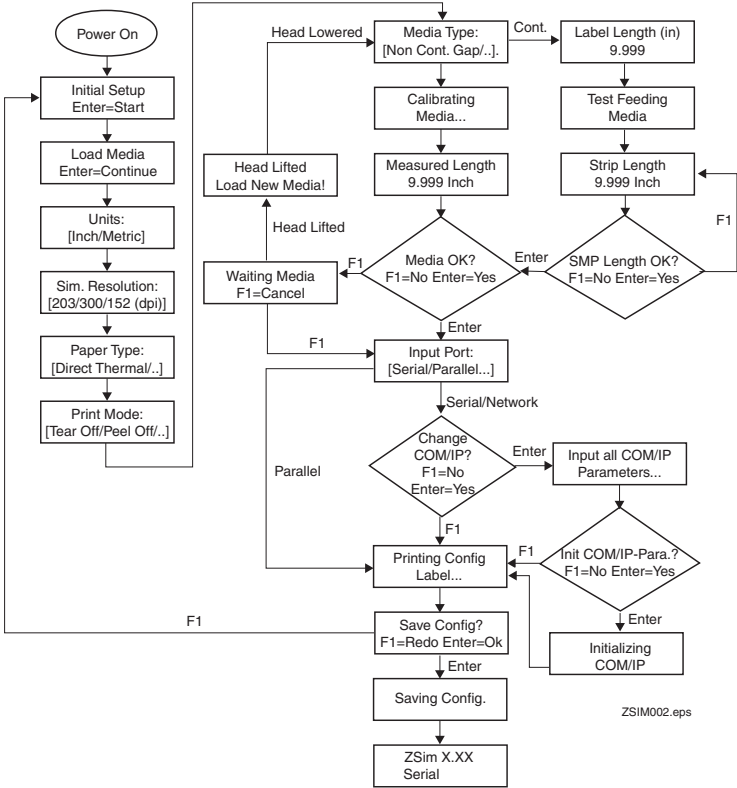
- 3 Start sending Zebra commands to the printer.

Using the Configuration Menu

You need to update configuration commands when you perform functions such as changing media. You can access the Configuration menu at any time by pressing **Setup**. For help locating the command you want to change, see the foldout Configuration Command Menu.

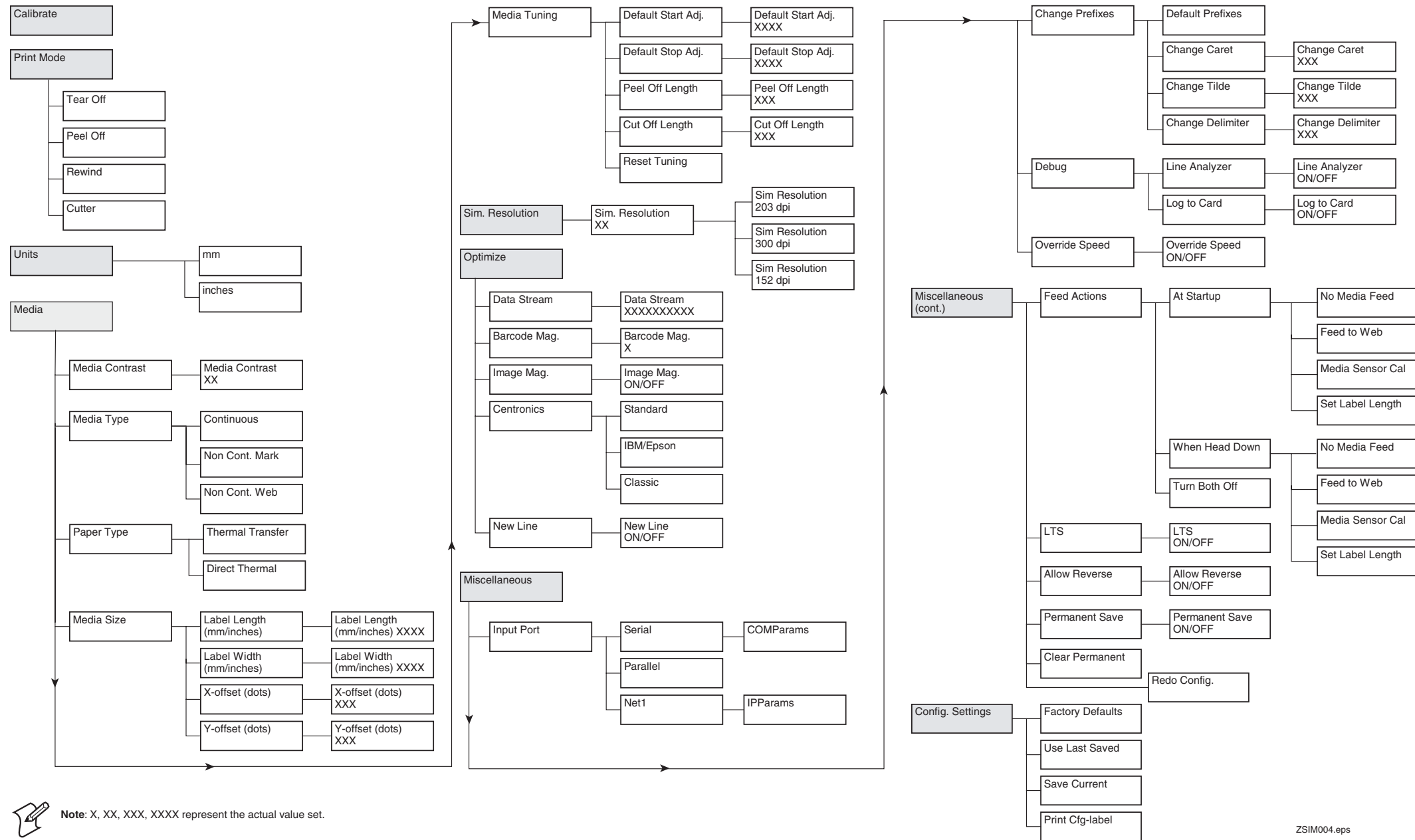
See the section “Understanding the Configuration Commands” later in this guide for the description and parameters of most of these commands.

Initial Setup Configuration Menu



ZSIM002.eps

Configuration Command Menu



Note: X, XX, XXX, XXXX represent the actual value set.

ZSIM004.eps

Understanding the Configuration Commands

Use the following configuration command descriptions to understand the parameters you are setting with the ZSim program.

Allow Reverse

Purpose: Allows reverse printing on the label, both for the entire label (^LR) and for specific fields (^FR).

Default: On

Calibrate

Purpose: Measures the label length and calibrates the sensors.

Change Caret

Purpose: Changes the format instruction prefix to another ASCII character.

Default: ^ (ASCII 94)

Change Delimiter

Purpose: Changes the ZPL delimiter character.

Default: , (ASCII 44)

Change Tilde

Purpose: Changes the command instruction prefix to another ASCII character.

Default: ~ (ASCII 126)

Clear Permanent

Purpose: Causes all formats and images stored in the printer's permanent memory to be erased.

Default Start Adjust

Purpose: Moves the origin back or forward from the edge of the label by [dots] before printing starts. This value can be either positive or negative.

A *positive* start adjustment means that the specified length of media will be fed out before printing starts. A *negative* start adjustment means that the specified length of media will be pulled back before printing starts.

Default: -175 dots (501XP, 601XP)
-100 dots (F4)

Default Stop Adjust

Purpose: Determines how much media in [dots] feeds through after printing is completed. This setting is used to make sure that the labels are in the correct position for tear off operation. This value can be either positive or negative.

A *positive* stop adjustment means that the normal media feed after printing is completed will be increased by the specified value. A *negative* stop adjustment means that the normal media feed after printing is completed will be decreased by the specified value.

Default: 0 dots

Factory Defaults

Purpose: Sets all of the ZSim program values back to their original settings.

Feed Action

Purpose: Sets the feed action that occurs at Start Up and When Head Down. Choices include No Media Feed, Feed to Web, Media Sensor Calibration, and Set Label Length.

Default: Feed to Web

Input Port

Purpose: Sets the type of input port you are using on your printer. You can set this value to parallel, serial, or network.

Default: Serial

Label Length

Purpose: Specifies the length of the labels in [inches] or [mm] depending on the units selected. This parameter is automatically set during the Initial Setup Configuration process.



Note: You can only set the label length if the Media Type is set to Continuous.

Label Width

Purpose: Specifies the width of the label in [inches] or [mm]. You should set the width to prevent labels from being printed outside of the printable area, which may harm the printhead.

Default: Full width of printhead:
4 inches (F4, 501XP)
6 inches (601XP)

Line Analyzer

Purpose: Determines whether to print received data on the label.

Default: Off

Log to Card

Purpose: Logs the received data to a file on a PC card. You can use the log file for later analysis.

Default: Off

LTS

Purpose: Turns the label taken sensor (LTS) on or off.

Default: Off

Media Contrast

Purpose: Adjusts the darkness and contrast of the printout. You can adjust this value from 0 to 30.

Default: 15

Media Type

Purpose: Sets the type of media used in the printer. Choices include: Continuous, Non Continuous with Mark, or Non Continuous with Gap.



Note: Please be aware that the terms used under Media Type are Zebra specific. Use this table to understand how to select the correct media type:

Zebra	EasyCoder
Non continuous web	Label with gaps
Non continuous mark	Ticket with marks
Continuous	Fixed length strip

Optimize Bar Code Magnification

Purpose: Magnifies the lowest narrow bar width if the printer resolution is different than your old Zebra printer. For example, if simulating an 8 dots/mm Zebra printer on a 12 dots/mm EasyCoder printer, there will be a noticeable difference when printing a bar code where the narrow bars are one dot wide.

Usually the ZSim program selects the bar code magnification that is smaller or equal to the desired size, but you may want a larger sized bar code. In most cases, a value of 1 should be sufficient. You can adjust the value from 0 to 9.

Default: 0 (off)

Optimize Centronics

Purpose: Configures the parallel port for the correct type of communications used in your network. Options include Standard, IBM/Epson, and Classic.

Default: Classic

Optimize Datastream



Note: You should only use the Optimize Datastream command if you are very familiar with the concept of examining the datastream. This command is intended for advanced users of the ZSim program.

Purpose: Increases download speed by telling the printer to ignore future downloads of images and formats. The printer automatically reviews the code it receives and determines whether an optimization is possible. The review process causes the first three labels to print slower, but then optimization begins and processing speed improves.



Note: If the formats or images change after the initial download, the ZSim program will not notice the change until you turn off datastream optimization.

Make sure that you use unique names for your images or formats if you want the program to optimize printing. If you use identical names, the program will not know how to optimize and may choose to optimize only one of the images or formats.

The datastream optimization also contains a font cache option which can slightly decrease font creation time based on the number of text fields in your label.

You can combine the numbers 0 to 3 in different algorithms to achieve your desired result.

Digit	Description
0	Enable font cache
1	Ignore already downloaded images with DG command
2	Ignore already downloaded images with the DF command
3	Ignore already downloaded images with the IS command



Note: You will slow down processing speed if you use the number 3 and there are no IS commands in the label.

Default: No optimization (empty data string)

Example: If you want to optimize labels that use the DG and DF commands, you would enter:

21 or 12

Optimize Image Magnification

Purpose: Magnifies images that may become too small with the ZSim program because of differences in dot resolutions between the Zebra and EasyCoder printers.

Default: Off

Optimize New Line

Purpose: Causes the printer to ignore any New Line characters that are not part of the field data.

Default: On

Paper Type

Purpose: Sets the type of paper used in the printer. You can set this command to Thermal Transfer or Direct Thermal. You set this parameter during the Initial Setup Configuration process.

Peel Off Length

Purpose: Sets the default distance the label should stop before the tear off bar when the printer is in Peel Off mode in [mm].

Default: 4 mm

Permanent Save

Purpose: Causes the ZSim program to store all downloaded formats and images permanently in the printer's memory. The next time you start up the printer, your saved formats and images are loaded and ready for use.



Note: If you are downloading your graphics or formats as you print, turn off Permanent Save to increase processing speed.

Turning Permanent Save off does not delete the saved formats, but they will not be loaded when the printer starts up.

Default: Off

Print Configuration Label

Purpose: Prints the current ZSim configuration settings on a label.

Print Mode

Purpose: Determines how the labels are handled after being printed.

Default: Tear off

Redo Config

Purpose: Removes the configuration file, reboots the printer, and enters the ZSim Initial Setup Configuration Menu when the printer restarts.



Note: You can only use the Redo Config command if you have access to the Fingerprint Setup menu. You will be prompted to enter the Fingerprint password before you can access this command.

Reset Tuning

Purpose: Returns all Media Tuning parameters to their original (default) values.

Save Current

Purpose: Saves the current ZSim configuration parameters for future use.

Simulation Resolution

Purpose: Set the resolution of the Zebra printer being simulated. You can set this command to 152 dpi, 203 dpi, or 300 dpi.



Note: The resolution between the simulated printer and your printer may cause a difference in bar code quality. See the Optimize Bar Code Magnification command for more information on fine-tuning the resolution.

Default: 203 dpi

Units

Purpose: The unit of measurement used when entering the Label Length or Label Width values. You can set this command to [mm] or [inch]. This parameter is automatically set during the Initial Setup Configuration process.

Use Last Saved

Purpose: Sets all of the ZSim program values back to the last saved configuration.

X-Offset

Purpose: Positions the printout distance from the left edge of the label in [dots].

Default: 0 dots

Y-Offset

Purpose: Positions the printout distance from the front edge of the label in [dots].

Default: 0 dots

Troubleshooting the ZSim

If you have problems using the ZSim program on your printer, look for your symptom in the next table and then try the suggested solutions.

Symptoms and Solutions

Symptom	Solution
Only half of the label is printing or the printing is too far forward or backward on the label.	You need to calibrate the ZSim program every time you load new media. To calibrate the ZSim program 1 Press Setup to enter the Configuration menu. 2 Press F4 or F5 until you reach Calibrate. 3 Press Enter . 4 Press Setup or F1 to leave the Configuration menu. You may also need to change the Default Start Adjust or Default Stop Adjust values.
You change a value in the Configuration menu but the new setting does not take effect.	You need to press Enter to save your changes. Pressing F1 is the equivalent of pressing the Esc key. In other words, your changes are canceled and the value remains the same.
You manually set the Print mode to Tear Off, but once you send a label to the printer the setting reverts to Rewind.	Check your print driver for its printer settings and correct the Print mode values. Some drivers send down Setup commands with their labels.



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