

# Troubleshooting

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## 1 What if my barcode scanner can't read the barcode?

If a barcode is unreadable by a barcode scanner it doesn't necessarily mean that this software is buggy. So before you send a bug report please consult the following checklist of things that can go wrong:

- Check the specifications of your barcode scanner to find out if the barcode you wanted to scan is even supported.
- Check your [barcode settings](#). Make sure the module widths, for example, are within the specs. Barcode4J can not always detect in advance that a barcode will be unreadable.
- Depending on your printer you might need to adjust the [barcode settings](#) (e.g., wide factor or module width) to get a better result. If the printer resolution compared to the barcode size is poor (e.g., laser printers generally output higher resolution than inkjet printers), you will run into problems.
- Sometimes you need to play with the resolution and module width settings to get the best result.

### Example:

The minimum *module width* can be computed by  $1 / [\text{resolution}]$ . Example:

$1 / 300\text{dpi} = 0.0033333333\text{in}$ . This results in narrow bars being exactly one pixel in width. For barcodes with a wide-factor parameter (like Codabar) you need to choose a non-fractional value in this case (2 or 3, not 2.5), because there is no "half a pixel" in bitmaps. If your values are *too* small, the barcode scanner won't be able to detect the difference between narrow and wide bars.

- Here's PDF that illustrates the result of various settings related to bitmap resolutions vs. module widths. Compare the various examples to see the subtle differences which can decide whether a barcode can be read or not: [barcode-resolution.pdf](#)



(around 13KB)

- Make sure your printer is in good operating condition. Print a test page to see if you have any missing areas or vertical lines. If only one element of a 1D barcode is narrower than it should be (e.g., because the printer doesn't work properly) the barcode will no longer be readable.
- Be careful when printing bitmap barcodes from a browser. You can't just reduce the resolution to get the desired size. It is better to increase the resolution and use HTML to scale down the bitmap or ... (see next point)
- Avoid JPEG as target format for your barcodes (e.g. GIF, PNG or TIFF are better). JPEG is a lossy compression format and contrast will suffer and thus degrading the readability of the generated barcode.
- When possible, favor a vector format like SVG or EPS over a bitmap so you can profit from the printer's maximum resolution as well as a nicer-looking human-readable message. Of course, if your printer is a fax at only 150dpi, you may still need to tweak your barcode settings.
- Make sure you respect the quiet zones (defined in the individual barcode specs) when you place the barcode on a page.
- Make sure the barcode doesn't get clipped or overwritten by text.
- Make sure you use checksums properly. For some barcodes, you can supply a checksum yourself in the message or let Barcode4J calculate it. If you do it yourself make sure the calculation is correct.

## **2 What if my barcode scanner sends back some incorrect characters?**

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Barcode scanners connected to the the keyboard cable send the barcode to the computer as simulated key presses. You need to make sure your barcode scanner is correctly set up with the same character set as your keyboard. Please consult the manual for your barcode scanner to find out how to do that.