Laser Guide: Barcodes

The following is a step-by-step guide on how to laser process barcodes of all types using the SpeedMark software.

Processes Covered
- 1D (Linear) Barcode
- 2D Barcode
- UID Barcode

Equipment Needed
- SpeedMarker System
- F 160 mm lens
- SpeedMark 3.1 b1 (or higher) software

Note: The UID element in SpeedMark will need to be activated. If needed, please contact your local Trotec office for more information on this option.
**Step 1: Select 1D (Linear) Barcode**

Select 1D (Linear) barcode from the “Codes” section on the left side of the SpeedMark software.

**Step 2: Select Flow Chart**

Place the cursor in the flow chart and left click to add it to the program. This will automatically open an import dialogue window as shown on step 3 below.

**Step 3: Adjust New Graphic**

Adjust the new graphic using the following fields:

**Barcode type:** Use this to select the type of barcode.

**Barcode:** Use this to enter the barcode information (text) applicable for the barcode type.

**Invert:** The Invert checkbox is used to indicate whether a barcode should be displayed inverted and which quiet zone settings should be used. (This will depend on the selected engraving material). This can be adjusted if needed.

**Advanced Settings:** Refer to page 56 of the SpeedMark User guide for information on advanced settings. Select “Add” when finished.

**Step 4: Adjust Location**

Adjust barcode graphic location by dragging or placing in X-Y coordinates and adjust the width and height as needed. Skip to Step 13 to laser process 1D (Linear) barcode.

**Step 5: 2D Barcodes**

Select the 2D barcode choice from the “Codes” section on the left side of the SpeedMark software.

**Step 6: Select Flow Chart**

Place the cursor in the flow chart and left click to add it to the flow chart. This will automatically open an import dialogue window as shown on step 7.
Step 7: Adjust New Graphic

Adjust the new graphic using the following fields:

**Barcode type**: Use this to select the type of barcode.

**Barcode**: Enter the barcode information (text) applicable for the barcode type.

**Size**: The possible barcode sizes depend on the chosen barcode type and can be set up here.

**Invert**: The Invert checkbox is used to indicate whether a barcode should be displayed inverted and which quiet zone settings should be used. (This will depend on the engraving material selected). This can be adjusted if needed.

**Advanced Settings**: Refer to page 56 of the SpeedMark User guide for information on advanced settings. Select “Add” when finished.

Step 8: Adjust Location

Adjust barcode graphic location by dragging or placing in X-Y coordinates. Adjust the width and or height as needed. Skip to Step 13 on to laser process a 2D barcode.

Step 9: UID Datamatrix Barcodes

Select UID Datamatrix barcode from the “Codes” section on the left side of the SpeedMark software.

Step 10: Select Flowchart

Place the cursor in the flow chart and left click to add it to the program. This will automatically open an import dialogue window as shown on step 11.

Step 11: Adjust new graphic

Barcode type: Use this to select the type of barcode.

**UID Coding Wizard**: Use this to enter the UID Construct, Enterprise ID and Serial number information for the UID barcode.

**Size**: The possible barcode sizes depend on the chosen barcode type and can be set up here.

**Invert**: The “Invert” checkbox is used to indicate whether a barcode should be displayed inverted and which quiet zone settings should be used. (This will depend on the selected engraving material).

**Advanced Settings**: Refer to page 56 of the SpeedMark User guide for information on advanced settings. Select “Add” when finished.

Adjust barcode graphic location by dragging or placing in X-Y coordinates. Adjust the width and or height as needed.

Step 12: Adjust location

Adjust barcode graphic location by dragging or placing in X-Y coordinates. Adjust the width and or height as needed.
Step 13: Choose Material Parameter

Highlight (select) 1D, 2D or UID Code, then select “Marking” in the left side of “Graphic properties.” Select “Material parameter” then assign desired material from the materials database.

To apply serial numbers to barcodes, refer to the “Serialized Machine Tags” tutorial.

To learn more about barcodes, refer to section 5.2.7 of the Speed Mark user manual (Page 54). A list of available barcodes in SpeedMark can be found in chapter 18.1 page 203.

Step 14: Position

Position the job before starting the marking process. The pilot laser can be used to outline the position of the mark on the work piece. To start press F9 or use the icon in the menu bar.

Step 15: Start the Marking Process

Start the marking process by pressing the F12 key or the Execute button in the menu bar.