

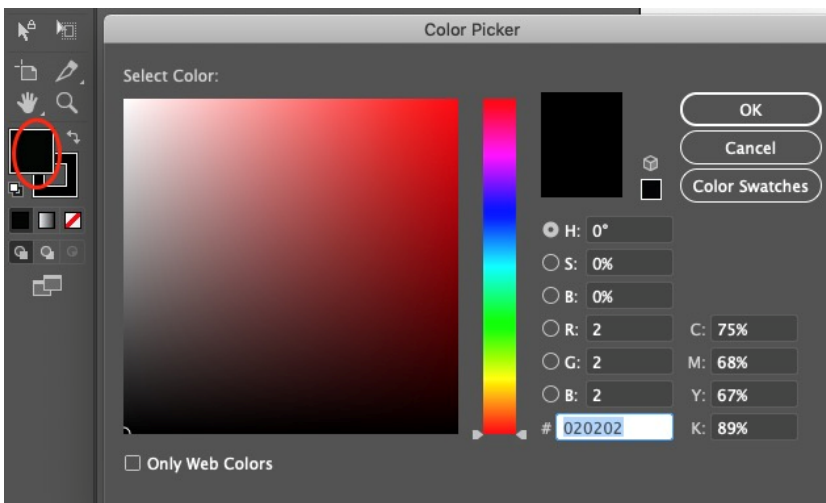
# Barcode Tool

A barcode is a graphical information identifier. It is a series of multiple black stripes and white spaces with different widths that are arranged according to specified encoding rules. Using the Prinerger Tools Barcode functionality, you can generate and edit a barcode in an Adobe Illustrator document, and save the barcode in the document.

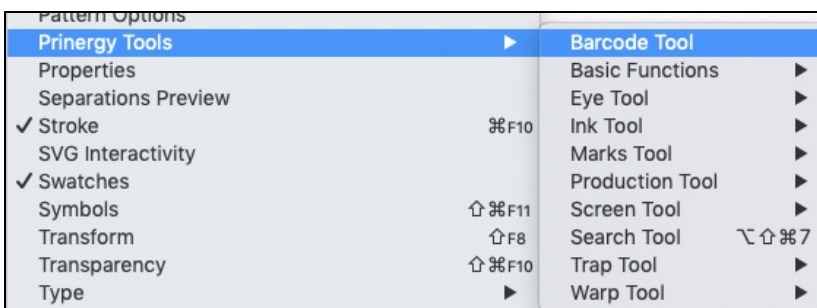
QR code symbols can be created in a range of matrix sizes. The amount of data that can be encoded in each symbol will vary, depending on **Minimum Symbol Size** (21 x 21 to 177 x 177), **Error Correction Level** (L, M, Q, H) and whether the encoded data is numeric, alphanumeric, binary, or double-byte (such as kanji). For instance, the amount of data that can be encoded in a 141x141 QR code will range from 2,677 alphanumeric characters with **Low** error correction to 1,150 alphanumeric characters with **High** error correction.

## How to create a Barcode

1. Launch Adobe Illustrator.
2. Create a new document or open an existing document in which you want to add a barcode.
3. Select a foreground color to display the color of the strips.  
It is recommended to use a single color at 100%.

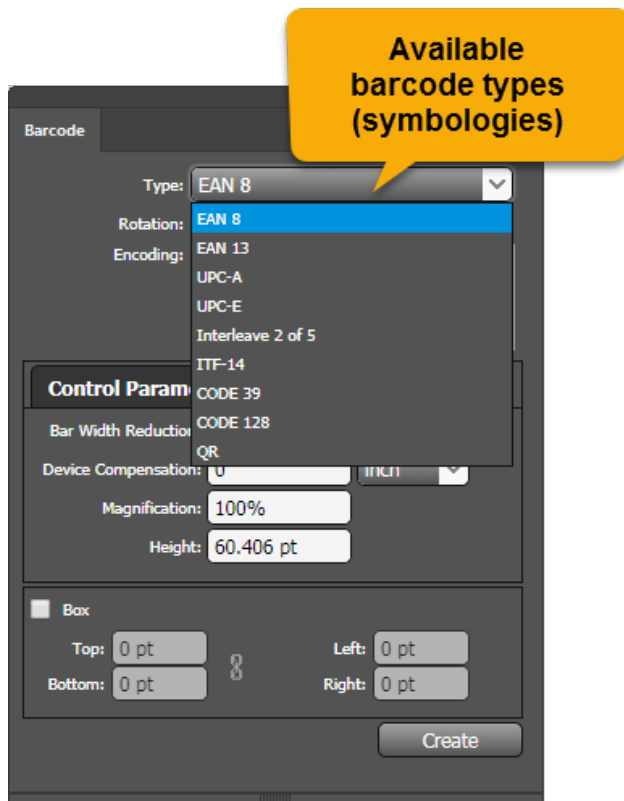


4. To open a barcode panel where you can specify the type of barcode and various parameters, select **Window > Prinerger Tools > Barcode Tool**.



5. From the **Type** list, select a barcode type (symbology).  
Prinerger Tools currently supports these types of barcodes:

- EAN 8
- EAN 13
- UPC-A
- UPC-E
- Interleave 2 of 5
- ITF-14
- CODE39
- CODE128
- QR
- GS1 128
- GS1 DataBar Omnidirectional
- GS1 DataBar Truncated
- GS1 DataBar Stacked
- GS1 DataBar Stacked Omnidirectional
- ISBN
- ISSN
- CODABAR
- PHARMA
- KURANDT



6. From the **Rotation** list, select a value for degree of rotation.
7. In the **Encoding** box, enter the data to be encoded.
8. On the **Control Parameter** tab, type or select values for the parameters.  
The type of barcode you selected determines which of these parameters appear in the panel. See screen captures of **Control Parameter** tabs for each type of barcode at the bottom of this page.

<b>Minimum Symbol Size</b>	QR code symbol sizes are available from a matrix of 21 x 21 cells up to 177 x 177 cells. The number of cells ( <b>Minimum Symbol Size</b> ) along with the Error Correction (ECC) level and data type determines the amount of data that can be encoded in each symbol. For instance, a 21x21 cell matrix with medium ECC can encode 20 alphanumeric characters, whereas a 177 x 177 matrix can encode 3,391 characters. For instance, a 21 x 21 matrix can encode “x” bits of data, whereas a 177 x 177 matrix can encode “x” bits of data.	Available only for QR type
<b>Error Correction Level</b>	Select <b>L</b> (low), <b>M</b> , <b>Q</b> , or <b>H</b> (high).	Available only for QR type
<b>Bar Width Reduction</b>	The amount that the width of individual bars are reduced to compensate for press gain. If there is too much press gain, barcodes can become unreadable by scanners. <b>Bar Width Reduction</b> is used to pre-compensate for press gain and ensure that bar codes remain readable.	All barcode types
<b>Device Compensation</b>	This parameter adjusts bar width to compensate for gain (or loss) caused by the plate making process. Enter a negative value to expand rather than reduce bar widths. Note that if <b>Bar Width Reduction</b> and <b>Device Compensation</b> values are both specified, the values will be added together.	All barcode types
<b>Magnification</b>	The scaling factor. The default value is 100% and the scaling value will be applied proportionally to the horizontal and vertical dimensions. When the magnification is modified, the <b>Height</b> item is also changed.	Not available for: Interleave 2 of 5, Code 39, and Code 128
<b>Height</b>	The height of the barcode. The default value is the height when the scale factor is 1.0. The modification of <b>Height</b> will not change of <b>Magnification</b> setting.	All barcode types
<b>Width</b>	The width of the QR barcode	Available only for QR type
<b>Cell Size</b>	The following website provides a reference to determine what minimum size of cell matrix (also known as the QR code “version”) would be required to represent the required data: <a href="#">Information capacity and versions of the QR code</a> .	Available only for QR type

<b>Characters per unit</b>	The number of characters per unit. When this value is modified, the value of <b>Narrow Bar</b> is also changed.	Available only for: Interleave 2 of 5, Code 39, and Code 128
<b>Ratio</b>	The ratio of wide strip to narrow strip. When this value is modified, the value of <b>Narrow Bar</b> also changes.	Available only for: Interleave 2 of 5 and Code 39
<b>Narrow Bar</b>	The width of the narrow strip. When this value is modified, the value of <b>Characters per unit</b> is also changed.	Available only for: Interleave 2 of 5, Code 39, and Code 128
<b>Total Height</b>	Include the height of the bar and the text area. When this value is modified, the setting of <b>Height</b> and <b>Add Human Readable Characters</b> is also changed.	Available only for ITF 14
<b>Left H</b>	The size of the H identifier at the left blank area of the barcode. If you select <b>None</b> , the H identifier is not drawn.	Available only for ITF 14
<b>Right H</b>	The size of the H identifier at the right blank area of the barcode. If you select <b>None</b> , the H identifier is not drawn.	Available only for ITF 14
<b>Add Check Digit</b>	If you select this item, a verification digit will be added when you generate the barcode.	Available only for Code 39

9. On the **Text Parameter** tab, type or select values for the parameters. The type of barcode you selected determines which of these parameters appear in the panel. See screen captures of **Text Parameter** tabs for each type of barcode at the bottom of this page.

<b>Add Human Readable Characters</b>	Select this item to display the encoded content below the barcode.
<b>Light margin indicator (&lt;&gt;)</b>	This parameter appears when EAN 8 or EAN 13 is selected as the barcode type. It controls whether to display an ">" indicator at the white space on the right side of the barcode.

<b>Font</b>	Set the text font below the barcode.
<b>Font Style</b>	Set the text font style below the barcode.

10. If you select the **Box** check box, a box will be added to the barcode with a white border along the top, bottom, left, and right sides to control the position of the outer border.
11. To generate a barcode in the middle of the current page, click **Create**.

### Control and Text parameters available for the EAN 8 barcode

The image displays two side-by-side screenshots of a software interface for configuring an EAN 8 barcode. Both windows have a title bar with 'Barcode' and a close button.

**Left Screenshot (Control Parameter tab):**

- Type: EAN 8 (dropdown)
- Rotation: 0 (dropdown)
- Encoding: 00000000 (text field)
- Control Parameter tab is selected.
- Bar Width Reduction: 1 (text field) mil (dropdown)
- Device Compensation: 1 (text field) mil (dropdown)
- Magnification: 100% (text field)
- Height: 21.31 mm (text field)
- Box: ☐ (checkbox)
- Top: 0 mm (text field), Left: 0 mm (text field)
- Bottom: 0 mm (text field), Right: 0 mm (text field)
- Create (button)

**Right Screenshot (Text Parameter tab):**

- Type: EAN 8 (dropdown)
- Rotation: 0 (dropdown)
- Encoding: 00000000 (text field)
- Text Parameter tab is selected.
- Add Human Readable Characters: ☒ (checkbox)
- Light Margin Indicator(< >): ☒ (checkbox)
- Font: Arial (dropdown)
- Font Style: Regular (dropdown)
- Box: ☐ (checkbox)
- Top: 0 mm (text field), Left: 0 mm (text field)
- Bottom: 0 mm (text field), Right: 0 mm (text field)
- Create (button)

### Control and Text parameters available for the EAN 13 barcode

Barcode

Type: EAN 13

Rotation: 0

Encoding: 0000000000000

**Control Parameter**   **Text Parameter**

Bar Width Reduction: 1 mil

Device Compensation: 1 mil

Magnification: 100%

Height: 25.93 mm

☐ Box

Top: 0 mm   Left: 0 mm

Bottom: 0 mm   Right: 0 mm

Create

Barcode

Type: EAN 13

Rotation: 0

Encoding: 0000000000000

**Control Parameter**   **Text Parameter**

☒ Add Human Readable Characters

☒ Light Margin Indicator(< >)

Font: Arial

Font Style: Regular

☐ Box

Top: 0 mm   Left: 0 mm

Bottom: 0 mm   Right: 0 mm

Create

### Control and Text parameters available for the UPC-A barcode

Barcode

Type: UPC-A

Rotation: 0

Encoding: 0000000000000

**Control Parameter**   **Text Parameter**

Bar Width Reduction: 1 mil

Device Compensation: 1 mil

Magnification: 100%

Height: 25.908 mm

☐ Box

Top: 0 mm   Left: 0 mm

Bottom: 0 mm   Right: 0 mm

Create

Barcode

Type: UPC-A

Rotation: 0

Encoding: 0000000000000

**Control Parameter**   **Text Parameter**

☒ Add Human Readable Characters

Font: Arial

Font Style: Regular

☐ Box

Top: 0 mm   Left: 0 mm

Bottom: 0 mm   Right: 0 mm

Create

### Control and Text parameters available for the UPC-E barcode

Barcode

Type: UPC-E

Rotation: 0

Encoding: 00000000

**Control Parameter**   **Text Parameter**

Bar Width Reduction: 1 mil

Device Compensation: 1 mil

Magnification: 100%

Height: 25.908 mm

☐ Box

Top: 0 mm   Left: 0 mm

Bottom: 0 mm   Right: 0 mm

Create

Barcode

Type: UPC-E

Rotation: 0

Encoding: 00000000

**Control Parameter**   **Text Parameter**

☒ Add Human Readable Characters

Font: Arial

Font Style: Regular

☐ Box

Top: 0 mm   Left: 0 mm

Bottom: 0 mm   Right: 0 mm

Create

### Control and Text parameters available for the Interleave 2 of 5 barcode

Barcode

Type: Interleave 2 of 5

Rotation: 0

Encoding: 00000000000000

**Control Parameter**   **Text Parameter**

Bar Width Reduction: 1 mil

Device Compensation: 1 mil

Height: 7.62 mm

Characters per unit: 0.656168 /mm

Ratio: 2.5

Narrow Bar: 0.1905 mm

☐ Box

Top: 0 mm   Left: 0 mm

Bottom: 0 mm   Right: 0 mm

Create

Barcode

Type: Interleave 2 of 5

Rotation: 0

Encoding: 00000000000000

**Control Parameter**   **Text Parameter**

☒ Add Human Readable Characters

Font: Arial

Font Style: Regular

☐ Box

Top: 0 mm   Left: 0 mm

Bottom: 0 mm   Right: 0 mm

Create

### Control and Text parameters available for the ITF 14 barcode

Barcode

Type: ITF-14

Rotation: 0

Encoding: 0000000000000000

**Control Parameter** **Text Parameter**

Bar Width Reduction: 1 mil

Device Compensation: 1 mil

Magnification: 100%

Height: 31.8 mm

Total Height: 40.18 mm

Left H: 4 mm

Right H: 3 mm

☐ Box

Top: 0 mm Left: 0 mm

Bottom: 0 mm Right: 0 mm

Create

Barcode

Type: ITF-14

Rotation: 0

Encoding: 0000000000000000

**Control Parameter** **Text Parameter**

☒ Add Human Readable Characters

Font: Arial

Font Style: Regular

☐ Box

Top: 0 mm Left: 0 mm

Bottom: 0 mm Right: 0 mm

Create

### Control and Text parameters available for the CODE 39 barcode

Barcode

Type: CODE 39

Rotation: 0

Encoding: 00000

**Control Parameter** **Text Parameter**

Bar Width Reduction: 1 mil

Device Compensation: 1 mil

Height: 9.398 mm

Characters per unit: 0.370078 /mm

Ratio: 2.39

Narrow Bar: 0.190694 mm

☐ Add Check Digit

☐ Box

Top: 0 mm Left: 0 mm

Bottom: 0 mm Right: 0 mm

Create

Barcode

Type: CODE 39

Rotation: 0

Encoding: 00000

**Control Parameter** **Text Parameter**

☒ Add Human Readable Characters

Font: Arial

Font Style: Regular

☐ Box

Top: 0 mm Left: 0 mm

Bottom: 0 mm Right: 0 mm

Create



## Control and Text parameters available for the Code 128 barcode

The image displays two side-by-side screenshots of a barcode configuration window for Code 128. Both windows have a title bar with 'X' and '44' icons. The 'Barcode' tab is selected in both.

**Left Screenshot (Control Parameters):**

- Type: CODE 128 (dropdown)
- Rotation: 0 (dropdown)
- Encoding: 00000 (text field)
- Control Parameter** (selected tab)
- Bar Width Reduction: 1 (text field) mil (dropdown)
- Device Compensation: 1 (text field) mil (dropdown)
- Height: 9.398 mm (text field)
- Characters per unit: 0.477213 (text field) /mm (dropdown)
- Narrow Bar: 0.1905 mm (text field)
- ☐ Box
- Top: 0 mm (text field) Left: 0 mm (text field)
- Bottom: 0 mm (text field) Right: 0 mm (text field)
- Create (button)

**Right Screenshot (Text Parameters):**

- Type: CODE 128 (dropdown)
- Rotation: 0 (dropdown)
- Encoding: 00000 (text field)
- Text Parameter** (selected tab)
- ☒ Add Human Readable Characters
- ☒ Light Margin Indicator(< >)
- Font: Arial (dropdown)
- Font Style: Regular (dropdown)
- ☐ Box
- Top: 0 mm (text field) Left: 0 mm (text field)
- Bottom: 0 mm (text field) Right: 0 mm (text field)
- Create (button)

## Control parameters available for the QR barcode (there are no Text parameters)

The image shows a screenshot of a QR barcode configuration window. The title bar has '44' and 'X' icons. The 'Barcode' tab is selected.

**QR Barcode Configuration:**

- Type: QR (dropdown)
- Rotation: 0 (dropdown)
- Encoding: 000000000000 (text field)
- Control Parameter** (selected tab)
- Minimum Symbol Size: 21 x 21 (text field) (dropdown)
- Error Correction Level: L (dropdown)
- Bar Width Reduction: 0 (text field) inch (dropdown)
- Device Compensation: 0 (text field) inch (dropdown)
- Height: 59.528 pt (text field)
- Width: 59.528 pt (text field)
- Cell Size: 2.835 pt (text field)
- ☐ Box
- Top: 0 pt (text field) Left: 0 pt (text field)
- Bottom: 0 pt (text field) Right: 0 pt (text field)
- Create (button)

Control and Text parameters available for the GS1 128 barcode

Barcode

Type: GS1 128

Rotation: 0°

Encoding: (01)00000000000000

Control Parameter

Text Parameter

Bar Width Reduction: 0micron

Device Compensation: 0micron

Magnification: 50%

Height: 1.26 in

Narrow Bar: 0.5 mm

☐ Box

Top: 0 in

Bottom: 0 in

Left: 0 in

Right: 0 in

Create

Barcode

Type: GS1 128

Rotation: 0°

Encoding: (01)00000000000000

Control Parameter

Text Parameter

☒ Add Human Readable Characters

☐ Multiline text

Font: Arial

Font Style: Regular

☐ Box

Top: 0 in

Bottom: 0 in

Left: 0 in

Right: 0 in

Create

Control and Text parameters available for the GS1 DataBar Omnidirectional barcode

Barcode

Type: GS1 DataBar Omnidirectional

Rotation: 0°

Encoding: 00000000000000

Composite Component:

Control Parameter

Text Parameter

☒ Add Human Readable Characters

☐ Multiline text

☐ Show (01) with barcode

Font: Arial

Font Style: Regular

☐ Box

Top: 0 in

Bottom: 0 in

Left: 0 in

Right: 0 in

Create

Barcode

Type: GS1 DataBar Omnidirectional

Rotation: 0°

Encoding: 00000000000000

Composite Component:

Control Parameter

Text Parameter

☒ Add Human Readable Characters

☐ Multiline text

☐ Show (01) with barcode

Font: Arial

Font Style: Regular

☐ Box

Top: 0 in

Bottom: 0 in

Left: 0 in

Right: 0 in

Create

Control and Text parameters available for the GS1 DataBar Truncated barcode

Barcode

Type: GS1 DataBar Stacked

Rotation: 0 °

Encoding: 00000000000000

Composite Component:

Control Parameter Text Parameter

☒ Add Human Readable Characters

☐ Multiline text

☐ Show (01) with barcode

Font: Arial

Font Style: Regular

☐ Box

Top: 0 in Left: 0 in

Bottom: 0 in Right: 0 in

Create

Barcode

Type: GS1 DataBar Stacked

Rotation: 0 °

Encoding: 00000000000000

Composite Component:

Control Parameter Text Parameter

☒ Add Human Readable Characters

☐ Multiline text

☐ Show (01) with barcode

Font: Arial

Font Style: Regular

☐ Box

Top: 0 in Left: 0 in

Bottom: 0 in Right: 0 in

Create

**Control and Text parameters available for the GS1 DataBar Stacked barcode**

Barcode

Type: GS1 DataBar Stacked

Rotation: 0 °

Encoding: 00000000000000

Composite Component:

Control Parameter Text Parameter

☒ Add Human Readable Characters

☐ Multiline text

☐ Show (01) with barcode

Font: Arial

Font Style: Regular

☐ Box

Top: 0 in Left: 0 in

Bottom: 0 in Right: 0 in

Create

Barcode

Type: GS1 DataBar Stacked

Rotation: 0 °

Encoding: 00000000000000

Composite Component:

Control Parameter Text Parameter

☒ Add Human Readable Characters

☐ Multiline text

☐ Show (01) with barcode

Font: Arial

Font Style: Regular

☐ Box

Top: 0 in Left: 0 in

Bottom: 0 in Right: 0 in

Create

**Control and Text parameters available for the GS1 DataBar Stacked Omnidirectional barcode**

Barcode

Type: GS1 DataBar Stacked Omnidirection: ▾

Rotation: 0 ▾ °

Encoding: 00000000000000

Composite Component:

**Control Parameter** **Text Parameter**

☒ Add Human Readable Characters

☐ Multiline text

☐ Show (01) with barcode

Font: Arial ▾

Font Style: Regular ▾

☐ Box

Top: 0 in Left: 0 in

Bottom: 0 in Right: 0 in

Create

Barcode

Type: GS1 DataBar Stacked Omnidirection: ▾

Rotation: 0 ▾ °

Encoding: 00000000000000

Composite Component:

**Control Parameter** **Text Parameter**

☒ Add Human Readable Characters

☐ Multiline text

☐ Show (01) with barcode

Font: Arial ▾

Font Style: Regular ▾

☐ Box

Top: 0 in Left: 0 in

Bottom: 0 in Right: 0 in

Create

### Control and Text parameters available for the ISBN barcode

Barcode Ink Coverage

Type: ISBN ▾

Rotation: 0 ▾ °

Encoding: 9780000000002

Addon:

**Control Parameters** **Text Parameters**

Bar Width Reduction: 0 micron ▾

Device Compensation: 0 micron ▾

Magnification: 100%

Height: 73.502 pt

☐ Box

Top: 0 pt Left: 0 pt

Bottom: 0 pt Right: 0 pt

Create

Barcode Ink Coverage

Type: ISBN ▾

Rotation: 0 ▾ °

Encoding: 9780000000002

Addon:

**Control Parameters** **Text Parameters**

☒ Add Human Readable Characters

☒ Light Margin Indicator(< >)

☐ Show ISBN-10

Hyphenation: Auto ▾

Font: Arial ▾

Font Style: Regular ▾

Font Size: Auto ▾

☐ Box

Top: 0 pt Left: 0 pt

Bottom: 0 pt Right: 0 pt

Create

### Control and Text parameters available for the ISSN barcode

Barcode Ink Coverage

Type: **ISSN**

Rotation: **0** °

Encoding: **00000000**

Variable: **00**

Addon:

**Control Parameters** **Text Parameters**

Bar Width Reduction: **0** **micron**

Device Compensation: **0** **micron**

Magnification: **100%**

Height: **73.502 pt**

☐ Box

Top: **0 pt** Left: **0 pt**

Bottom: **0 pt** Right: **0 pt**

Create

Barcode Ink Coverage

Type: **ISSN**

Rotation: **0** °

Encoding: **00000000**

Variable: **00**

Addon:

**Control Parameters** **Text Parameters**

☒ Add Human Readable Characters

☒ Light Margin Indicator(< >)

Font: **Arial**

Font Style: **Regular**

Font Size: **Auto**

☐ Box

Top: **0 pt** Left: **0 pt**

Bottom: **0 pt** Right: **0 pt**

Create

**Control and Text parameters available for the CODABAR barcode**

Barcode Ink Coverage

Type: **CODABAR**

Rotation: **0** °

Encoding: **A00000B**

**Control Parameters** **Text Parameters**

Bar Width Reduction: **0** **micron**

Device Compensation: **0** **micron**

Height: **21.6 pt**

Characters per unit: **0.393701** **/mm**

Ratio: **2**

Narrow Bar: **0.72 pt**

☐ Box

Top: **0 pt** Left: **0 pt**

Bottom: **0 pt** Right: **0 pt**

Create

Barcode Ink Coverage

Type: **CODABAR**

Rotation: **0** °

Encoding: **A00000B**

**Control Parameters** **Text Parameters**

☒ Add Human Readable Characters

☒ Show Start/End Characters

Font: **Arial**

Font Style: **Regular**

Font Size: **Auto**

☐ Box

Top: **0 pt** Left: **0 pt**

Bottom: **0 pt** Right: **0 pt**

Create

**Control and Text parameters available for the Pharma Code barcode**

Barcode Ink Coverage

Type: Pharma Code

Rotation: 0

Encoding: 15

Control Parameters Text Parameters

☒ Add Human Readable Characters

Font: Arial

Font Style: Regular

Font Size: Auto

☐ Box

Top: 0 pt Left: 0 pt

Bottom: 0 pt Right: 0 pt

Create

### Control and Text parameters available for the Kurandt barcode

Barcode Ink Coverage

Type: Kurandt Code

Rotation: 0

Encoding: 0

Control Parameters Text Parameters

☒ Add Human Readable Characters

Font: Arial

Font Style: Regular

Font Size: Auto

☐ Box

Top: 0 pt Left: 0 pt

Bottom: 0 pt Right: 0 pt

Create

