

Dynamic Barcodes

User Guide

Contents

1. Copyright Notice.....	4
2. What is a barcode ?.....	6
3. Getting Started with Dynamic Barcodes.....	7
4. Using Dynamic Barcodes in Unlicensed Mode.....	8
5. Dynamic Barcodes Basics.....	9
5.1 Creating a Barcode.....	9
5.2 Editing a Barcode.....	11
5.3 Setting Barcode Parameters to Default.....	11
5.4 Barcode Placeholders.....	12
5.4.1 Creating a Barcode Placeholder Quickly.....	12
5.4.2 Previewing and Creating a Barcode Placeholder.....	13
6. Dynamic Barcodes Advanced.....	16
6.1 Choosing a Font Standard.....	16
6.2 Using Dynamic Content with Dynamic Barcodes.....	16
6.3 Barcode Protection.....	17
6.3.1 Protecting a Barcode.....	17
6.3.2 Handling a Barcode without Dynamic Barcodes.....	17
6.4 Exporting Documents with Barcodes.....	19
6.4.1 Viewing Barcode Information in Other Esko Applications.....	19
6.4.2 Editing Barcodes in Other Esko Applications.....	20
7. Barcode Types and Parameters.....	21
7.1 Supported Barcode Types.....	21
7.2 Barcode Parameters.....	22
7.2.1 2 of 5.....	22
7.2.2 CLF-8.....	25
7.2.3 Codabar.....	27
7.2.4 Code 128.....	30
7.2.5 Code 128 (long).....	34
7.2.6 Code 39.....	37
7.2.7 DataMatrix.....	40
7.2.8 EAN 13.....	42
7.2.9 EAN 8.....	45
7.2.10 GS1 128.....	48
7.2.11 GS1 DataBar Omnidirectional.....	52
7.2.12 GS1 DataBar Stacked.....	55
7.2.13 GS1 DataBar Stacked Omnidirectional.....	58

7.2.14 GS1 DataBar Truncated.....	61
7.2.15 GS1 DataBar Expanded.....	64
7.2.16 GS1 DataBar Expanded Stacked.....	67
7.2.17 GS1 DataBar Limited.....	70
7.2.18 GS1 DataMatrix.....	73
7.2.19 GS1 U.S. Coupon Interim.....	76
7.2.20 HIBC 128.....	79
7.2.21 HIBC 39.....	81
7.2.22 ITF-14.....	83
7.2.23 ITF-16.....	86
7.2.24 Interleaved 2 of 5.....	89
7.2.25 Laetus Pharma Code.....	92
7.2.26 M+S 7.....	94
7.2.27 MSI.....	96
7.2.28 Marks & Spencer's.....	99
7.2.29 NDC / HRI.....	101
7.2.30 PZN.....	104
7.2.31 PZN8.....	107
7.2.32 Paraf Italy.....	110
7.2.33 PDF417.....	112
7.2.34 MicroPDF417.....	115
7.2.35 UPC-A.....	117
7.2.36 UPC-E.....	120
7.2.37 UPC-SCS.....	122
7.2.38 QR.....	125
7.2.39 MicroQR.....	128

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2. What is a barcode ?

A barcode is a machine-readable representation of information in a visual format on a surface. Barcodes can be read by optical scanners, allowing quick and easy identification of all kind of goods.

Originally barcodes stored data in the widths and spacings of printed parallel lines, but today they also come in patterns of dots, concentric circles, and hidden in images.

The information contained in a barcode varies from numbers to complete ASCII texts. The drive to encode ever more information in combination with the space requirements of simple barcodes led to the development of matrix barcodes or 2D barcode, which do not consist of bars but rather a grid of square cells.

Barcodes are just the visible part of often quite large systems frequently referred to as automated identification systems. These systems are increasingly proving to be some of the most cost-effective management tools, since they enable organizations to keep track of their goods and stocks in all kinds of situations in a fast, accurate and efficient way.

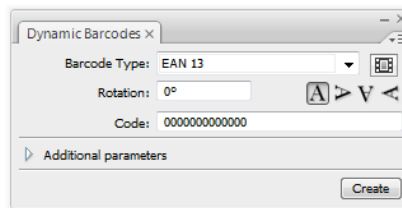
With the Dynamic Barcodes plug-in, you can add a dynamic barcode to your document without leaving your application. Dynamic means that your barcode settings can be changed later on, even after you saved, closed and reopened your document.

3. Getting Started with Dynamic Barcodes

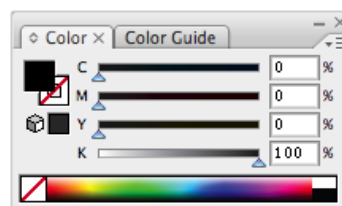
To introduce you to Dynamic Barcodes, here is how to make your first barcode in four simple steps.

1. Create a CMYK Illustrator document and go to **Windows > Esko > Dynamic Barcodes**.

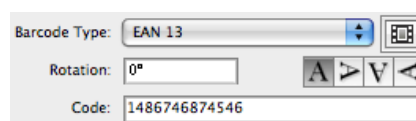
This opens the **Dynamic Barcodes** dialog.



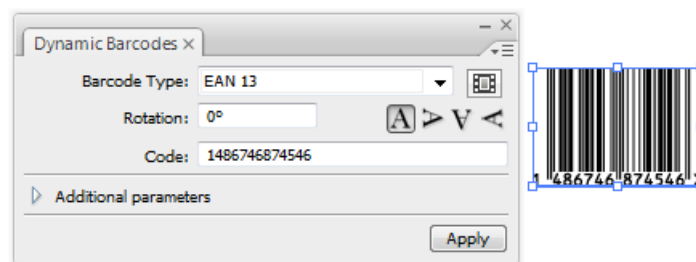
2. Define the color of the barcode: in your Illustrator color palette, define a single-color fill style and no stroke.



3. Enter the barcode parameters (**Barcode Type**, numeric **Code**...) in the **Dynamic Barcodes** dialog.
For example, for an EAN 13 barcode, select **EAN 13** as **Barcode Type** and enter a 13 digit **Code**.



4. Click the **Create** button and Dynamic Barcodes will generate the barcode in your document.



4. Using Dynamic Barcodes in Unlicensed Mode

If you don't have a license for the Dynamic Barcodes plug-in, you still use it in unlicensed mode to perform limited operations. You can:

- Open documents containing barcodes created by Dynamic Barcodes without warning messages.
- Create barcode placeholders (with no data in them) in your design.

See [Creating a Barcode Placeholder Quickly](#).

You can also use the regular Illustrator functions to:

- change the barcode's position in your document,
- rotate it by multiples of 90 degrees (using **Object > Transform > Rotate**),

Tip: You can rotate several barcodes at once.

- change its fill color (it is not possible to apply a stroke),

Attention:

Choose a fill color that is:

- a process or a spot color (other colors might generate trapping problems),
- not too light (or the barcode might be difficult to scan).

- copy and paste it.
- delete it.

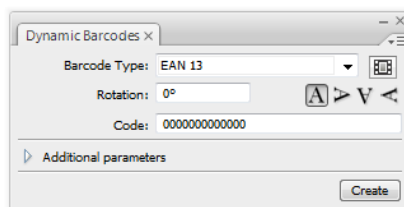
5. Dynamic Barcodes Basics

5.1 Creating a Barcode

1. Create a CMYK Illustrator document and go to **Windows > Esko > Dynamic Barcodes**.

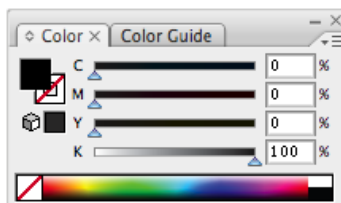
You can also use the **Command + Option + 4** shortcut on Mac, or the **CTRL + Alt + 4** shortcut on PC.

This opens the **Dynamic Barcodes** dialog.



2. Define the color of the barcode: in your Illustrator color palette, define a single-color fill style and no stroke.

Dynamic Barcodes creates bars by generating rectangular objects and assigning the current fill style to them.



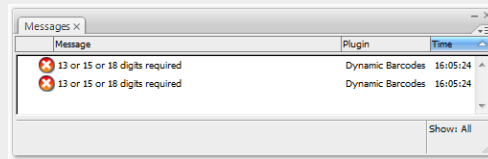
Attention:

Choose a fill color that is:

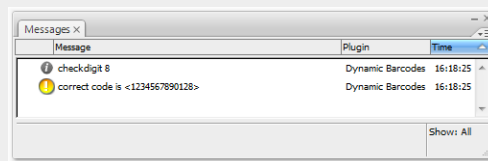
- a process or a spot color (other colors might generate trapping problems),
- not too light (or the barcode might be difficult to scan).

3. In the **Dynamic Barcodes** dialog, select your **Barcode Type**.
4. Enter a **Rotation** angle for your barcode, or use one of the rotation buttons. Choose the **Orientation** of your barcode using one of the buttons or by entering an angle.
5. Enter the barcode's data in the **Code** field. For most barcodes, you can choose to also show this data as a (human-readable) number.

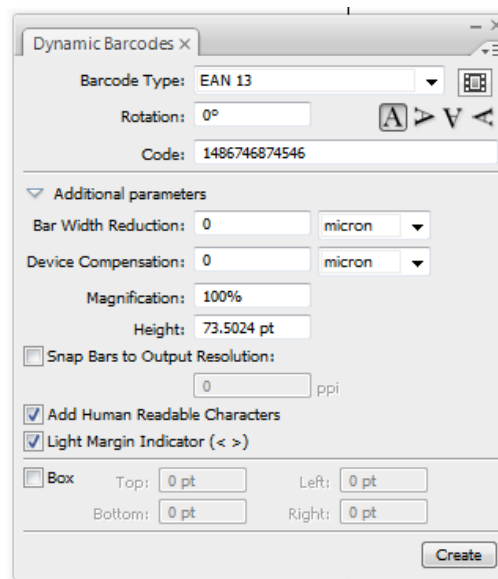
Attention: Make sure the barcode data you enter is valid for the barcode type you chose. If it isn't, a warning / error will pop up.



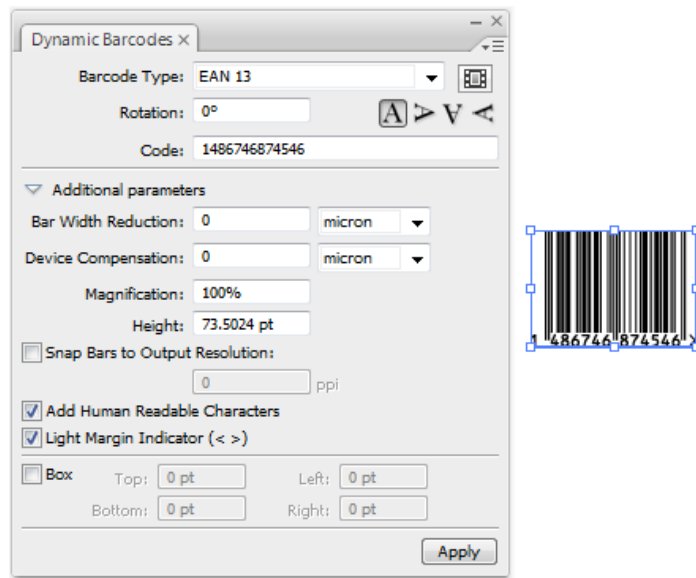
Note: If you enter a wrong check digit, Dynamic Barcodes can fix it automatically for you.



- To fill in other parameters specific to the barcode type you chose, open the **Additional parameters** section and see [Barcode Parameters](#).



- Click the **Create** button.
 - If you have the boostX plug-in installed, Dynamic Barcodes generates your barcode at the intersection of the boostX crosshair.
 - If you don't have the boostX plug-in installed, Dynamic Barcodes generates your barcode in the center of the view.



5.2 Editing a Barcode

With Dynamic Barcodes, you can also edit existing barcodes.

1. Open the **Dynamic Barcodes**.
2. Select the barcode to edit in your Illustrator document.
3. Change its parameters as you wish in the **Dynamic Barcodes** dialog.

Note:

If you change the **Barcode Type** and the previous **Code** is not valid for this barcode type, Dynamic Barcodes will reset it to the (first) default code for this barcode type.


This is the default code used for placeholder barcodes; you can see it in the preset barcodes dialog (see [Previewing and Creating a Barcode Placeholder](#)).

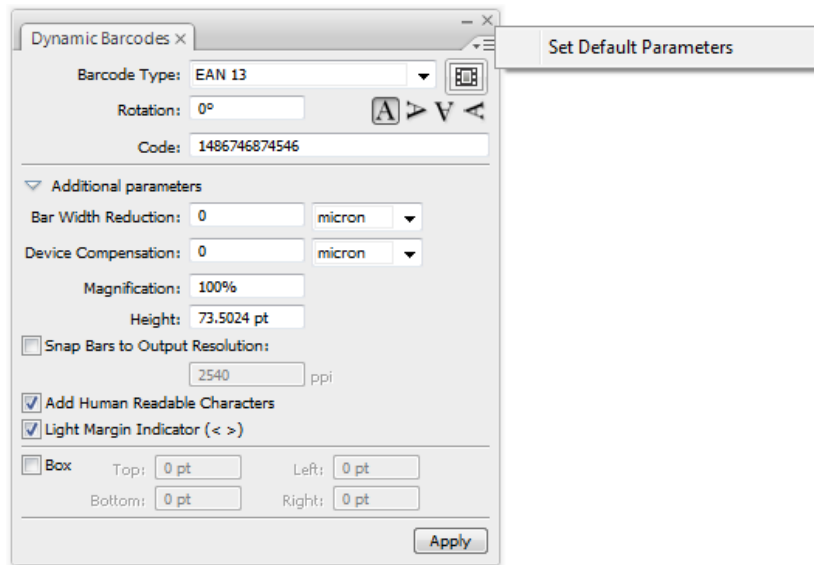
You can then either:

- enter your own valid code,
- use this default code to create a placeholder barcode (see [Creating a Barcode Placeholder Quickly](#)).

4. Click the **Apply** button to apply your changes to the barcode.

5.3 Setting Barcode Parameters to Default

- To reset all the parameters of the selected barcode to default, click the palette menu  in the top right corner of the **Dynamic Barcodes** dialog then click **Set Default Parameters**.



5.4 Barcode Placeholders

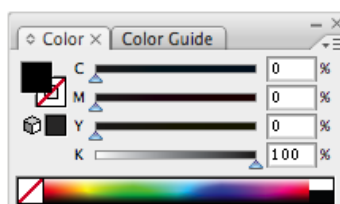
If you don't have the exact data to encode in your barcode yet, you can already create a barcode placeholder in your design.

This placeholder will have the correct symbol type for the barcode type you choose, but will only contain “empty” or “default” data (for example 0000000000000 for EAN 13).



5.4.1 Creating a Barcode Placeholder Quickly

1. Open the **Dynamic Barcodes** dialog from **Windows > Esko > Dynamic Barcodes**.
2. Define the color of the barcode: in your Illustrator color palette, define a single-color fill style and no stroke.



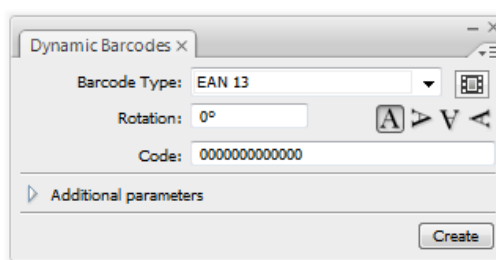
Attention:

Choose a fill color that is:

- a process or a spot color (other colors might generate trapping problems),
- not too light (or the barcode might be difficult to scan).

3. In the **Dynamic Barcodes** dialog, select your **Barcode Type**.

The **Code** field is automatically filled out with a nul / default value that has the correct number of digits for your **Barcode Type** (for example 0000000000000 for EAN 13).



4. Click the **Create** button to create your barcode placeholder.

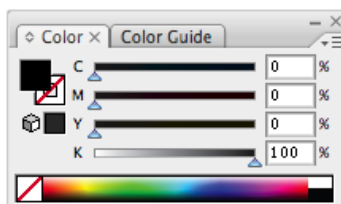


Note: You can also create a barcode placeholder in unlicensed mode (see [Using Dynamic Barcodes in Unlicensed Mode](#) on page 8).

5.4.2 Previewing and Creating a Barcode Placeholder

You can use Dynamic Barcodes to preview different barcode types before creating your barcode placeholder.


1. Open the **Dynamic Barcodes** dialog from **Window > Esko > Dynamic Barcodes**.
2. Define the color of the barcode: in your Illustrator color palette, define a single-color fill style and no stroke.

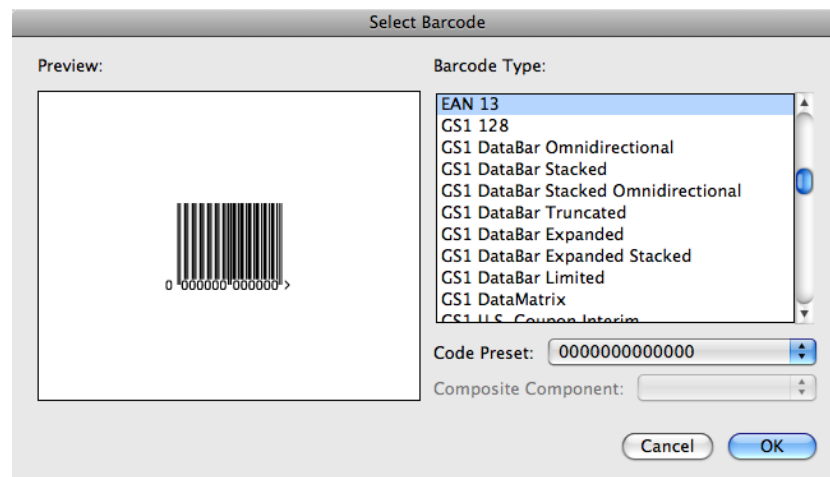


Attention:

Choose a fill color that is:

- a process or a spot color (other colors might generate trapping problems),
- not too light (or the barcode might be difficult to scan).

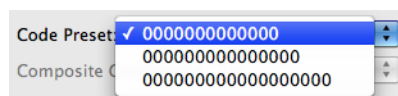
3. In the **Dynamic Barcodes** dialog, click the Pre-set barcodes icon . This opens the **Select Barcode** dialog.



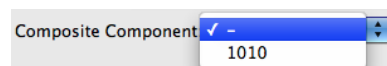
4. Select your **Barcode Type** on the right to see a **Preview** of it on the left.

Note: This shows previews of barcode placeholders. Your actual barcode (with data and specific parameters affecting its size) may look slightly different. For more information on barcode parameters, see [Barcode Parameters](#).

5. If your barcode data can have several possible lengths (for example EAN 13 can have 13, 15 or 18 digits), choose the length you want to preview in **Code Preset**.



6. If your barcode can have a **Composite Component** (some GS1 barcodes), you can choose to preview it with or without that component.



7. Click **OK** to use the preview parameters (**Barcode Type**, **Code Preset** and **Composite Component** as applicable) in the **Dynamic Barcodes** dialog and close the **Select Barcode** dialog.
8. In the **Dynamic Barcodes** dialog, click the **Create** button to create your barcode placeholder.



Dynamic Barcodes x

Barcode Type: EAN 13

Rotation: 0°

Code: 0000000000000

Additional parameters

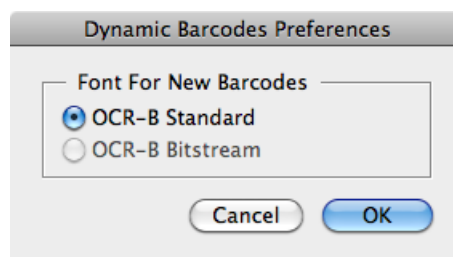
Apply

6. Dynamic Barcodes Advanced



6.1 Choosing a Font Standard

You can choose between two font standards for the human-readable characters of your barcodes.

1. Go to **Illustrator > Preferences > Esko > Dynamic Barcodes Preferences...** to open the **Dynamic Barcodes Preferences** dialog.



2. Choose either **OCR-B Standard** or **OCR-B Bitstream** and click **OK**.

<p>OCR-B Standard fonts are rounder and typically used in the Western market.</p>	
<p>OCR-B Bitstream fonts are typically used in the Asian market.</p>	

6.2 Using Dynamic Content with Dynamic Barcodes

You can use the Dynamic Content plug-in to turn barcodes created with Dynamic Barcodes into XML-driven objects. These barcodes update automatically when the XML files to which they are linked change.

For more information, see the Dynamic Content documentation.

6.3 Barcode Protection

Once you create a barcode with Dynamic Barcodes, this barcode is protected. This means that it won't be possible to edit it with most regular Illustrator tools. This protects the barcode against modifications that might render it invalid, for example distorting it or modifying its size.

You can still edit the barcode's parameters at any time through the **Dynamic Barcodes** dialog.

6.3.1 Protecting a Barcode

You can protect a Dynamic Barcodes barcode that has been unprotected, or a barcode made in a previous version of Dynamic Barcodes.

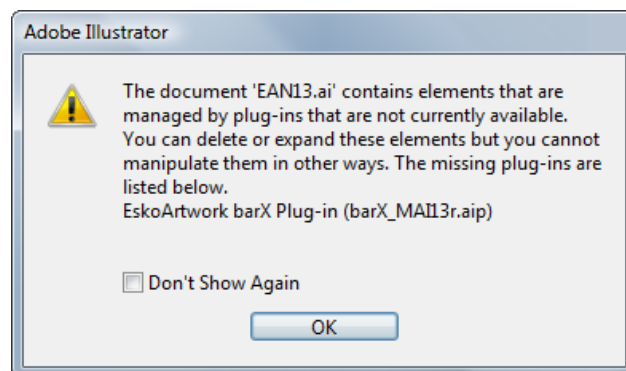
1. Open the Dynamic Barcodes plug-in.
2. Select the barcode to protect in your Illustrator document.
3. If necessary, change its parameters in the **Dynamic Barcodes** dialog.
4. Click the **Apply** button to apply the parameter changes and protect your barcode.

Tip: You can use this to fix some invalid barcodes.

6.3.2 Handling a Barcode without Dynamic Barcodes

Opening a Document Containing a Dynamic Barcodes Barcode without Dynamic Barcodes

When opening a document containing a Dynamic Barcodes barcode in an Illustrator application that doesn't have the Dynamic Barcodes plug-in, you will get the following warning:



This doesn't create any problem in your file, and you can continue to work with this file as you normally would, without editing the Dynamic Barcodes barcode.

If you need to edit the Dynamic Barcodes barcode with your Illustrator application, see [Editing a Document Containing a Dynamic Barcodes Barcode without Dynamic Barcodes](#).

Editing a Document Containing a Dynamic Barcodes Barcode without Dynamic Barcodes

If you don't have the Dynamic Barcodes plug-in, you can still use Illustrator to do the following operations without rendering your barcode invalid.

If you don't have Dynamic Barcodes installed, you will not be able to

- move or scale the object using the Selection tool
- move or distort it (reflect, shear or scale)
- change a color

You will be able to

- expand the bar code
- Rotate by Selection or Free transform - this can lead to inconsistent results so we recommend not doing this.
- move, rotate and distort by the Transform Each command - this can lead to inconsistent results so we recommend not doing this.
- enclose it in the Envelope and distort
- delete it
- copy and paste it

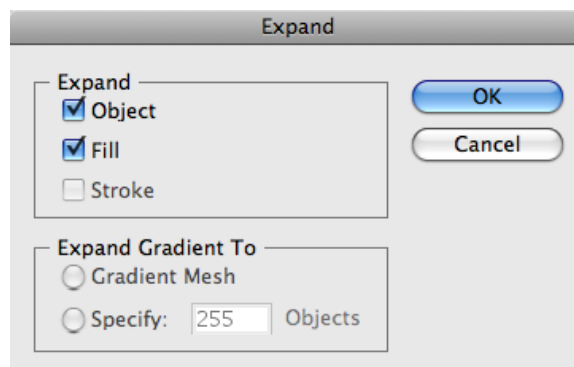
If the Dynamic Barcode plugin is installed, but without a valid license, you will be able to do everything that is allowed by the plugin, except modifying the content. This means for example moving and rotating is allowed, but due to the bar code protection, any potentially dangerous operations such as scale, reflect or shear are not allowed. You will also be able to change the color of the bar code.

Unprotecting a Dynamic Barcodes Barcode for Further Editing

You can expand your Dynamic Barcodes barcode to a regular Illustrator group art to be able to edit it further, but this is not recommended as it will remove the barcode's protection.

Attention: It will then be possible to make modifications that might render the barcode invalid.

1. To do this, go to **Object > Expand...** in the Illustrator menu.
2. Choose the object's characteristics to expand, then click **OK**.



This turns your barcode into a regular Illustrator object. You can now for example edit each bar of the barcode individually.

6.4 Exporting Documents with Barcodes

If you are using other Esko applications, you can export Illustrator documents containing barcodes to the Esko Normalized PDF format, preserving the barcodes' information and editability.

6.4.1 Viewing Barcode Information in Other Esko Applications

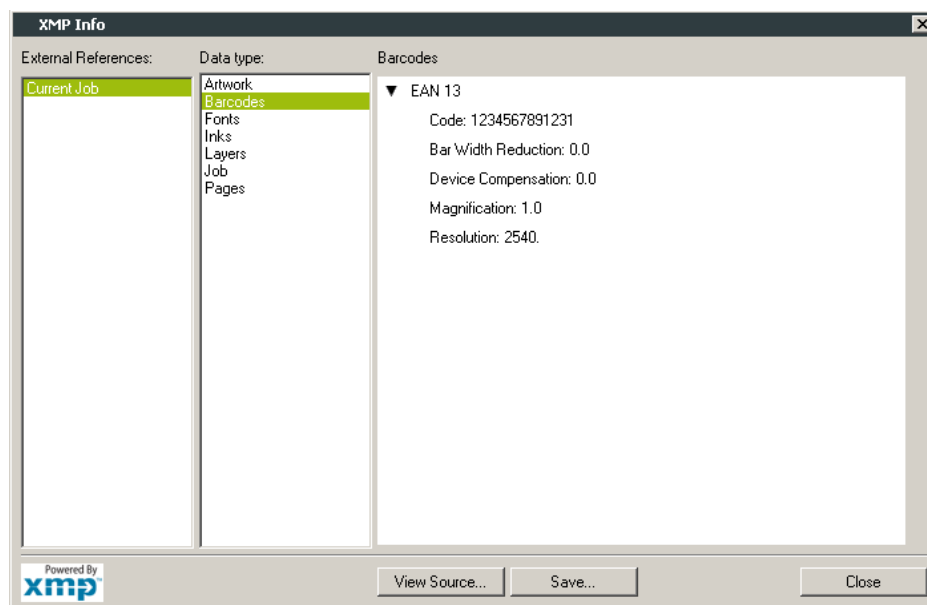
1. Export your Illustrator document to the Esko Normalized PDF format:
 - If you have Automation Engine, use **Shuttle** to launch the document into your chosen workflow. This converts it to Normalized PDF automatically.

Note: See the Adobe Illustrator Client documentation for setup information.

- If you don't have Automation Engine, use **File > Export** and choose Normalized PDF as the export format.
2. Select (in Automation Engine) or open (in PackEdge / Acrobat) your document and open the XMP information as explained below:

If you have...	go to...
Automation Engine	File > Info.
PackEdge	File > XMP Info.
the Esko XMP plug-in in Adobe Acrobat	Esko > XMP Document Info...

3. Click **Barcodes** in the **Data type** column (as below in PackEdge) to show the barcode information.



For more information, see the Shuttle, Automation Engine, PackEdge or XMP plug-in documentation.

6.4.2 Editing Barcodes in Other Esko Applications

The Dynamic Barcodes functionality is available both as a DeskPack plug-in and in PackEdge.

- To edit your document containing barcodes in PackEdge:
 - a) Export your Illustrator document to the Esko Normalized PDF format:
 - If you have Automation Engine, use **Shuttle** to launch the document into your chosen workflow. This converts it to Normalized PDF automatically.

Note: See the Adobe Illustrator Client documentation for setup information.

- If you don't have Automation Engine, use **File > Export** and choose Normalized PDF as the export format.
 - b) Open your document in PackEdge.
 - c) Go to **Production > Bar Code...** to edit your barcode as you would edit it with Dynamic Barcodes.

For more information, see the Shuttle and PackEdge documentation.

7. Barcode Types and Parameters

7.1 Supported Barcode Types

General Purpose Barcodes

1D	2D
<ul style="list-style-type: none"> • Code 39 • 2 of 5 • Interleaved 2 of 5 • Codabar • Code 128 • Code 128 (long) • MSI 	<ul style="list-style-type: none"> • DataMatrix • QR • MicroQR

Retail Barcodes

1D	2D
<ul style="list-style-type: none"> • EAN 13 • EAN 8 • UPC-A • UPC-E • GS1 DataBar Omnidirectional • GS1 DataBar Truncated • GS1 DataBar Stacked • GS1 DataBar Stacked Omnidirectional • GS1 DataBar Limited • GS1 DataBar Expanded • GS1 DataBar Expanded Stacked • GS1 128 • GS1 U.S. Coupon Interim • M+S 7 • Marks & Spencer 	<ul style="list-style-type: none"> • GS1 DataMatrix

Pharmaceutical, Healthcare and Cosmetic Barcodes

1D

- NDC / HRI
- Laetus Pharma Code
- CLF-8
- HIBC 39
- HIBC 128
- Paraf Italy
- PZN
- PZN8

Shipment Container Barcodes

1D

- ITF-14
- ITF-16
- UPC-SCS

Identity Document Barcode

2D

- PDF417
- MicroPDF417

7.2 Barcode Parameters

7.2.1 2 of 5

About this Barcode...

2 of 5 is a numeric self-checking barcode, which can have a variable length. This barcode only encodes data in the bars. It is used for industrial applications, article numbering, photo development and ticketing.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milli-inches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milli-inches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Height

Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Characters per unit

This parameter allows you to define your barcode's width based on the encoding of (numeric or alphanumeric) characters.

You can choose the unit to use: **micron**, **mil** (milli-inches), **mm** or **inch**.

For example, choose **mm** and use **1 Character per unit** in the **Dynamic Barcodes** dialog if you want the bars needed to encode one character to take up 1 mm.



Increase the **Characters per unit** value to make the barcode narrower, or decrease it to make the barcode wider. For example, if you choose 0.5 **Character per unit**, the bars needed to encode one character will take up 2 mm.



Ratio

The **Ratio** is the factor between the width of the narrow bar and the width of the wide bar in your barcode. For example, enter 3 if you want your wide bar to be three times as wide as your narrow bar.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode (and affects the width of your barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.



If you want to change them independently, click the link symbol to make it look detached .

7.2.2 CLF-8

About this Barcode...

The CLF-8 barcode is part of the same barcode family as the Laetus Pharma Code. It is used in the pharmaceutical industry.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Height

Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode (and affects the width of your barcode proportionally).

Ratio

The **Ratio** is the factor between the width of the narrow bar and the width of the wide bar in your barcode. For example, enter 3 if you want your wide bar to be three times as wide as your narrow bar.

Wide Bar

This parameter determines the width of the widest bar of your barcode.

Gap

Enter the width of the white space between the bars.

Note: The **Ratio** influences the **Gap** size: increasing the **Ratio** also increases the **Gap** size.

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Decimal Input

Use this parameter to change the type of data you can enter in the **Code** field.

- Disable it to enter the data to encode in binary format.
- Enable it to enter the data in numeric instead of binary format.

Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.

If you want to change them independently, click the link symbol to make it look detached .

7.2.3 Codabar

About this Barcode...

The Codabar barcode is commonly used in libraries, blood banks, and the air parcel business. It can encode up to 126 characters of data and two control characters, using digits and the “-”, “\$”, “.”, “/” and “+” characters.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Rational (Constant Bar Width)

By enabling this option, you can create a "Rational" Codabar bar code.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Height

Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Characters per unit

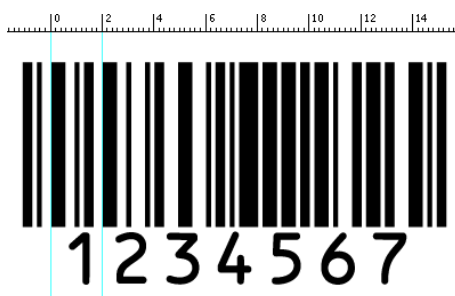
This parameter allows you to define your barcode's width based on the encoding of (numeric or alphanumeric) characters.

You can choose the unit to use: **micron**, **mil** (milliinches), **mm** or **inch**.

For example, choose **mm** and use **1 Character per unit** in the **Dynamic Barcodes** dialog if you want the bars needed to encode one character to take up 1 mm.



Increase the **Characters per unit** value to make the barcode narrower, or decrease it to make the barcode wider. For example, if you choose **0.5 Character per unit**, the bars needed to encode one character will take up 2 mm.



Ratio

The **Ratio** is the factor between the width of the narrow bar and the width of the wide bar in your barcode. For example, enter 3 if you want your wide bar to be three times as wide as your narrow bar.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode (and affects the width of your barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds "human readable" characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.

<input checked="" type="checkbox"/> Box	Top: 1 mm		Left: 1 mm
	Bottom: 1 mm		Right: 1 mm

If you want to change them independently, click the link symbol to make it look detached

7.2.4 Code 128

About this Barcode...

Code 128 is a variable length, high density, alphanumeric barcode. It has the second highest density of all the 1D barcodes (after the GS1 Databar Expanded).

It can contain a set of control characters. These control characters can change the character encoding type. In the absence of control characters, the encoding type is chosen automatically, to optimize the content encoding.

To force the usage of the code-set A, precede your data with the [a] control character. To force the usage of the code-set B, precede your data with the [b] control character. To obtain an optimal utilization of the code-sets A and B but prevent the usage of the space saving code-set C, use the Code 128 (long) barcode type instead.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

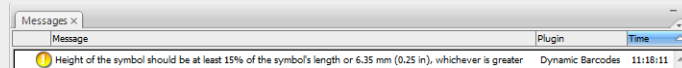
Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Height

Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Note:

In Dynamic Barcodes, you can create Code 128 barcodes shorter than the minimum height. Dynamic Barcodes will just display a warning, but if you export the document to EPF and open it in PackEdge, PackEdge will extend the barcode to its minimum required height.

**Characters per unit**

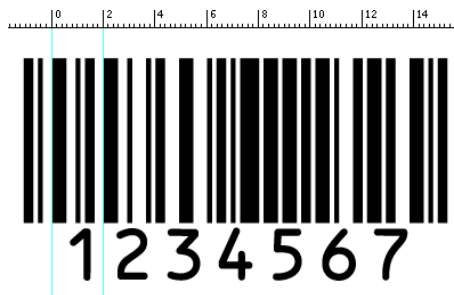
This parameter allows you to define your barcode's width based on the encoding of (numeric or alphanumeric) characters.

You can choose the unit to use: **micron**, **mil** (milli-inches), **mm** or **inch**.

For example, choose **mm** and use **1 Character per unit** in the **Dynamic Barcodes** dialog if you want the bars needed to encode one character to take up 1 mm.



Increase the **Characters per unit** value to make the barcode narrower, or decrease it to make the barcode wider. For example, if you choose **0.5 Character per unit**, the bars needed to encode one character will take up 2 mm.

**Narrow Bar**

This parameter determines the width of the narrowest bar of your barcode (and affects the width of your barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Light Margin Indicator (< >)

This parameter adds “<” and “>” signs (or only “>” depending on the barcode type) at the bottom of your barcode. This indicates the width the barcode should have for optimal reading.



Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.



If you want to change them independently, click the link symbol  .

7.2.5 Code 128 (long)

About this Barcode...

Code 128 (long) is a version of Code 128 that doesn't use the space-saving “C” character set. This makes Code 128 (long) barcodes generally longer.



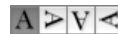
Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milli-inches (“mil”), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milli-inches (“mil”), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

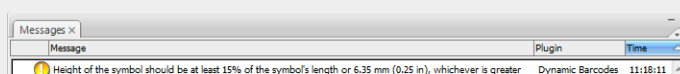
Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Height

Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Note:

In Dynamic Barcodes, you can create Code 128 barcodes shorter than the minimum height. Dynamic Barcodes will just display a warning, but if you export the document to EPF and open it in PackEdge, PackEdge will extend the barcode to its minimum required height.



Characters per unit

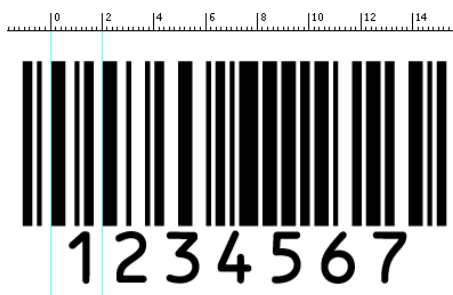
This parameter allows you to define your barcode's width based on the encoding of (numeric or alphanumeric) characters.

You can choose the unit to use: **micron**, **mil** (milli-inches), **mm** or **inch**.

For example, choose **mm** and use **1 Character per unit** in the **Dynamic Barcodes** dialog if you want the bars needed to encode one character to take up 1 mm.



Increase the **Characters per unit** value to make the barcode narrower, or decrease it to make the barcode wider. For example, if you choose **0.5 Character per unit**, the bars needed to encode one character will take up 2 mm.



Narrow Bar

This parameter determines the width of the narrowest bar of your barcode (and affects the width of your barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Light Margin Indicator (< >)

This parameter adds "<" and ">" signs (or only ">" depending on the barcode type) at the bottom of your barcode. This indicates the width the barcode should have for optimal reading.



Add Human Readable Characters

This parameter adds "human readable" characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.



If you want to change them independently, click the link symbol to make it look detached .

7.2.6 Code 39

About this Barcode...

Code 39 is a popular barcode in industrial barcoding systems, mainly in the U.S.A. It is used in the non-retail industry, particularly in the manufacturing, military, and health sectors. It can encode alphanumeric data.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Height

Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Characters per unit

This parameter allows you to define your barcode's width based on the encoding of (numeric or alphanumeric) characters.

You can choose the unit to use: **micron**, **mil** (milliinches), **mm** or **inch**.

For example, choose **mm** and use **1 Character per unit** in the **Dynamic Barcodes** dialog if you want the bars needed to encode one character to take up 1 mm.



Increase the **Characters per unit** value to make the barcode narrower, or decrease it to make the barcode wider. For example, if you choose **0.5 Character per unit**, the bars needed to encode one character will take up 2 mm.



Ratio

The **Ratio** is the factor between the width of the narrow bar and the width of the wide bar in your barcode. For example, enter 3 if you want your wide bar to be three times as wide as your narrow bar.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode (and affects the width of your barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Check Digit

Use this parameter to add a check digit to your barcode data.

Note: Code 39 doesn't usually contain a check digit but it can be required in some cases.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.



If you want to change them independently, click the link symbol to make it look detached .

7.2.7 DataMatrix

About this Barcode...

DataMatrix is used for encoding large amounts of alphanumeric data and / or marking small objects. It can encode all the standard ASCII and extended ASCII characters.

The DataMatrix symbol size can adjust automatically depending on the amount of data.

Dynamic Barcodes doesn't generate human readable characters for DataMatrix symbols. The data to be encoded in a DataMatrix symbol can contain an FNC1 character but only at the beginning of the data.

Note: Dynamic Barcodes always generates DataMatrix symbols with the recommended ECC200 error correction scheme.



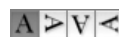
Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches (“mil”), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches (“mil”), millimeters or inches.

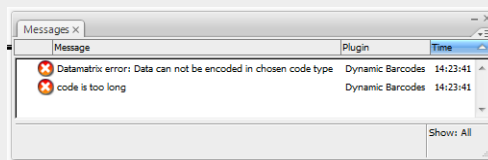
Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Symbol Type

Choose the number of cells to use for your barcode (in the format “horizontal cells x vertical cells”).

Note: If the number of cells you choose for your symbol is too small to encode the data you entered in **Code**, Dynamic Barcodes will display an error.



You can choose **Best Fit** to make Dynamic Barcodes automatically adapt the number of cells to the amount of data you entered in **Code**.

Cell Size

Enter the size you want to give to each cell of the symbol. This affects the size of the whole symbol.

The unit used is the one you chose as Illustrator's **General** unit in the **Units & Display Performance Preferences**.

In the example below, the first symbol has a 1 mm cell size (cells sides are 1 mm), and the second one a 2 mm cell size.



Width / Total Height

The **Width** and **Total Height** parameters depend on the **Cell Size** and the number of cells used for the symbol (**Symbol Type**).

In the example below, a symbol of 10 x 10 cells where each cell is 3 mm gives a Width and Total Height of 30 x 30 mm.

Symbol Type: 10 by 10
 Cell Size: 3 mm
 Width: 30 mm
 Total Height: 30 mm

Box

Use this parameter to create an opaque white box under your barcode.

Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.

By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.

☒ Box
 Top: 1 mm
 Bottom: 1 mm
 Left: 1 mm
 Right: 1 mm

If you want to change them independently, click the link symbol to make it look detached .

7.2.8 EAN 13

About this Barcode...

European Article Numbering system or EAN is the standard for article numbering in Europe. It is also used in Japan where it is called JAN.

Note: EAN is the European equivalent of the UPC system in the U.S.A. and Canada. Both systems use the same size requirements and a similar encoding scheme. This means that most European and American retail barcode scanners can read both EAN and UPC barcodes. For more information on UPC, see [UPC-A](#).



An EAN 13 is a numeric barcode of thirteen digits, and can have two or five additional digits.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01 mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milli-inches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milli-inches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Magnification

Use this parameter to increase or decrease the barcode size proportionally.

In the example below, you can see the same barcode at 80%, 100% and 120% magnification.



Height

Enter the height to give to your barcode (this is the combined height of the bars and the human readable characters). Your barcode needs to be tall enough to be read easily by barcode scanners.

Attention: Do not change the **Height** of the barcode before entering a **Magnification** value. The **Height** will change again according to the **Magnification** factor you define.

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Light Margin Indicator (< >)

This parameter adds “<” and “>” signs (or only “>” depending on the barcode type) at the bottom of your barcode. This indicates the width the barcode should have for optimal reading.



Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.



If you want to change them independently, click the link symbol to make it look detached .

7.2.9 EAN 8

About this Barcode...

EAN 8 is an abbreviated version of EAN 13, for use on smaller packages. It contains eight digits of data.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Magnification

Use this parameter to increase or decrease the barcode size proportionally.

In the example below, you can see the same barcode at 80%, 100% and 120% magnification.



Height

Enter the height to give to your barcode (this is the combined height of the bars and the human readable characters). Your barcode needs to be tall enough to be read easily by barcode scanners.

Attention: Do not change the **Height** of the barcode before entering a **Magnification** value. The **Height** will change again according to the **Magnification** factor you define.

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds "human readable" characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Light Margin Indicator (< >)

This parameter adds “<” and “>” signs (or only “>” depending on the barcode type) at the bottom of your barcode. This indicates the width the barcode should have for optimal reading.



Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.

<input checked="" type="checkbox"/> Box	Top: 1 mm		Left: 1 mm
	Bottom: 1 mm		Right: 1 mm

If you want to change them independently, click the link symbol to make it look detached .

7.2.10 GS1 128

About this Barcode...

GS1 128 (formerly EAN 128) is a Code 128 barcode designed primarily to identify products.

It contains one or more FNC1 (GS1 Function Code 1) control characters and Application Identifiers. It shows parentheses around the human readable interpretation of the Application Identifiers, but those parentheses are not encoded in the barcode.



It is alphanumeric and can also contain composite symbols.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

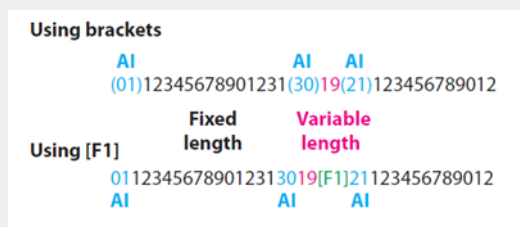
Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Attention:

When entering data to be encoded in GS1 barcodes, you can either enter Application Identifiers (AI) including the brackets, or you can enter the code without brackets, using FNC1 code at the end of each variable-length element in the data. While entering GS1 data, following remarks should be taken into account:

- Do not add the mandatory FNC1 character at the beginning of the data. Dynamic Barcodes will add it automatically.
- For GS1 bar codes intended for encoding AI (01) only, AI has to be omitted, i.e. don't enter '01' at the beginning. It doesn't matter if entered with or without brackets.
- The Composite Component can be created using the same rules for using brackets and [F1]. It's not necessary to keep the same way of entering the Composite Component and the main code.
- If you don't use brackets for entering AI, type [F1] at the end of each variable-length element in the data, to represent a FNC1 terminating character, except when the variable-length element is placed at the end of the whole code.
- You don't need to type [F1] at the end of fixed-length elements.
- Do not mix using [F1] as terminators of variable AI and entering brackets around the AI.



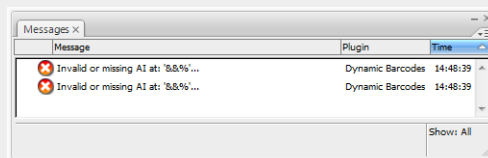
Dynamic Barcodes also checks the validity of the Application Identifiers you enter in the **Code** and / or in the **Composite Component** of GS1 barcodes.

Composite Component

A **Composite Component** is a 2D symbol placed on top of a GS1 barcode, that encodes extra information (batch number, expiration date...).

If you want your barcode to have a **Composite Component**, enter the (alphanumeric) data to encode in this field.

Note: Dynamic Barcodes checks the data you enter for the Composite Component (for example to see if the Application Identifiers you entered are correct), and displays a warning if it is invalid.

**Bar Width Reduction**

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches (“mil”), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches (“mil”), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Magnification

Use this parameter to increase or decrease the barcode size proportionally.

In the example below, you can see the same barcode at 80%, 100% and 120% magnification.



Height

Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode. This affects the size (height and width) of your GS1 barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Multiple Text Lines

Select this parameter if you want the human readable characters to be printed on multiple lines below the barcode. Dynamic Barcodes will start a new line for every element of the barcode data (starting with the Application Identifier).



Note: When reopening your document in PackEdge, the characters will be placed back on a single line.

Additional Text Offset

This parameter allows you to add extra space between your barcode bars and the human readable characters.



Note: When reopening your document in PackEdge, the characters will be placed just below the bars again.

Box


Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.



If you want to change them independently, click the link symbol to make it look detached .

7.2.11 GS1 DataBar Omnidirectional

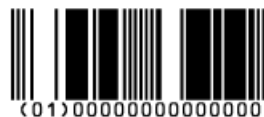
About this Barcode...

Barcodes of the GS1 DataBar family (formerly Reduced Space Symbols or RSS) can identify small items, and encode more information than the current EAN or UPC barcodes.

They can include GS1 Application Identifiers such as serial numbers, lot numbers, expiration dates...

Note: GS1 DataBar codes are expected to replace most common EAN and UPC barcodes from 2010.

GS1 DataBar Omnidirectional encodes Global Trade Item Numbers (GTIN) in a linear symbol that can be scanned omnidirectionally by suitably programmed slot scanners.



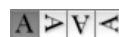
Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

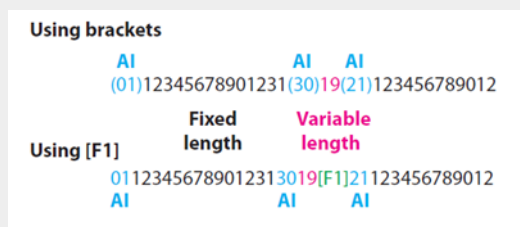
Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Attention:

When entering data to be encoded in GS1 barcodes, you can either enter Application Identifiers (AI) including the brackets, or you can enter the code without brackets, using FNC1 code at the end of each variable-length element in the data. While entering GS1 data, following remarks should be taken into account:

- Do not add the mandatory FNC1 character at the beginning of the data. Dynamic Barcodes will add it automatically.
- For GS1 bar codes intended for encoding AI (01) only, AI has to be omitted, i.e. don't enter '01' at the beginning. It doesn't matter if entered with or without brackets.
- The Composite Component can be created using the same rules for using brackets and [F1]. It's not necessary to keep the same way of entering the Composite Component and the main code.
- If you don't use brackets for entering AI, type [F1] at the end of each variable-length element in the data, to represent a FNC1 terminating character, except when the variable-length element is placed at the end of the whole code.
- You don't need to type [F1] at the end of fixed-length elements.
- Do not mix using [F1] as terminators of variable AI and entering brackets around the AI.



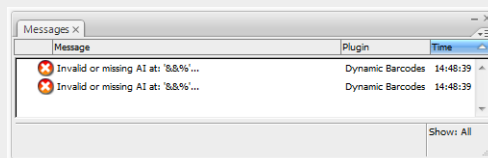
Dynamic Barcodes also checks the validity of the Application Identifiers you enter in the **Code** and / or in the **Composite Component** of GS1 barcodes.

Composite Component

A **Composite Component** is a 2D symbol placed on top of a GS1 barcode, that encodes extra information (batch number, expiration date...).

If you want your barcode to have a **Composite Component**, enter the (alphanumeric) data to encode in this field.

Note: Dynamic Barcodes checks the data you enter for the Composite Component (for example to see if the Application Identifiers you entered are correct), and displays a warning if it is invalid.

**Bar Width Reduction**

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches (“mil”), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches (“mil”), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode. This affects the size (height and width) of your GS1 barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Multiple Text Lines

Select this parameter if you want the human readable characters to be printed on multiple lines below the barcode. Dynamic Barcodes will start a new line for every element of the barcode data (starting with the Application Identifier).



Note: When reopening your document in PackEdge, the characters will be placed back on a single line.

Additional Text Offset

This parameter allows you to add extra space between your barcode bars and the human readable characters.



Note: When reopening your document in PackEdge, the characters will be placed just below the bars again.

7.2.12 GS1 DataBar Stacked

About this Barcode...

GS1 DataBar Stacked is a variation of the GS1 DataBar barcode, that is stacked in two rows and used when the normal barcode would be too wide for the product.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Attention:

When entering data to be encoded in GS1 barcodes, you can either enter Application Identifiers (AI) including the brackets, or you can enter the code without brackets, using FNC1 code at the end of each variable-length element in the data. While entering GS1 data, following remarks should be taken into account:

- Do not add the mandatory FNC1 character at the beginning of the data. Dynamic Barcodes will add it automatically.
- For GS1 bar codes intended for encoding AI (01) only, AI has to be omitted, i.e. don't enter '01' at the beginning. It doesn't matter if entered with or without brackets.
- The Composite Component can be created using the same rules for using brackets and [F1]. It's not necessary to keep the same way of entering the Composite Component and the main code.
- If you don't use brackets for entering AI, type [F1] at the end of each variable-length element in the data, to represent a FNC1 terminating character, except when the variable-length element is placed at the end of the whole code.
- You don't need to type [F1] at the end of fixed-length elements.
- Do not mix using [F1] as terminators of variable AI and entering brackets around the AI.

Using brackets	
AI (01)12345678901231	AI AI (30)19(21)123456789012
	Fixed length Variable length
Using [F1]	
01123456789012313019[F1]21123456789012	
AI	AI AI

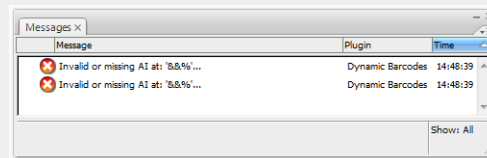
Dynamic Barcodes also checks the validity of the Application Identifiers you enter in the **Code** and / or in the **Composite Component** of GS1 barcodes.

Composite Component

A **Composite Component** is a 2D symbol placed on top of a GS1 barcode, that encodes extra information (batch number, expiration date...).

If you want your barcode to have a **Composite Component**, enter the (alphanumeric) data to encode in this field.

Note: Dynamic Barcodes checks the data you enter for the Composite Component (for example to see if the Application Identifiers you entered are correct), and displays a warning if it is invalid.

**Bar Width Reduction**

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches (“mil”), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches (“mil”), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode. This affects the size (height and width) of your GS1 barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Multiple Text Lines

Select this parameter if you want the human readable characters to be printed on multiple lines below the barcode. Dynamic Barcodes will start a new line for every element of the barcode data (starting with the Application Identifier).



Note: When reopening your document in PackEdge, the characters will be placed back on a single line.

Additional Text Offset

This parameter allows you to add extra space between your barcode bars and the human readable characters.



Note: When reopening your document in PackEdge, the characters will be placed just below the bars again.

7.2.13 GS1 DataBar Stacked Omnidirectional

About this Barcode...

GS1 DataBar14 Stacked Omnidirectional is taller version of GS1 DataBar14 Stacked, that can be read by omnidirectional scanners.



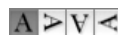
Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

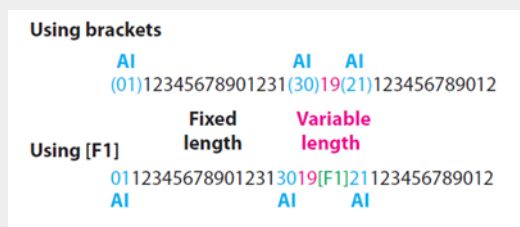
Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Attention:

When entering data to be encoded in GS1 barcodes, you can either enter Application Identifiers (AI) including the brackets, or you can enter the code without brackets, using FNC1 code at the end of each variable-length element in the data. While entering GS1 data, following remarks should be taken into account:

- Do not add the mandatory FNC1 character at the beginning of the data. Dynamic Barcodes will add it automatically.
- For GS1 bar codes intended for encoding AI (01) only, AI has to be omitted, i.e. don't enter '01' at the beginning. It doesn't matter if entered with or without brackets.
- The Composite Component can be created using the same rules for using brackets and [F1]. It's not necessary to keep the same way of entering the Composite Component and the main code.
- If you don't use brackets for entering AI, type [F1] at the end of each variable-length element in the data, to represent a FNC1 terminating character, except when the variable-length element is placed at the end of the whole code.
- You don't need to type [F1] at the end of fixed-length elements.
- Do not mix using [F1] as terminators of variable AI and entering brackets around the AI.



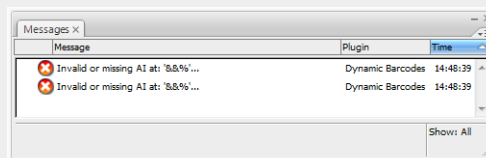
Dynamic Barcodes also checks the validity of the Application Identifiers you enter in the **Code** and / or in the **Composite Component** of GS1 barcodes.

Composite Component

A **Composite Component** is a 2D symbol placed on top of a GS1 barcode, that encodes extra information (batch number, expiration date...).

If you want your barcode to have a **Composite Component**, enter the (alphanumeric) data to encode in this field.

Note: Dynamic Barcodes checks the data you enter for the Composite Component (for example to see if the Application Identifiers you entered are correct), and displays a warning if it is invalid.

**Bar Width Reduction**

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches (“mil”), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches (“mil”), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode. This affects the size (height and width) of your GS1 barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Multiple Text Lines

Select this parameter if you want the human readable characters to be printed on multiple lines below the barcode. Dynamic Barcodes will start a new line for every element of the barcode data (starting with the Application Identifier).



Note: When reopening your document in PackEdge, the characters will be placed back on a single line.

Additional Text Offset

This parameter allows you to add extra space between your barcode bars and the human readable characters.



Note: When reopening your document in PackEdge, the characters will be placed just below the bars again.

7.2.14 GS1 DataBar Truncated

About this Barcode...

GS1 DataBar Truncated (formerly RSS Limited) is similar to GS1 DataBar but the height of its bars is truncated.

It encodes Global Trade Item Numbers in a smaller symbol for use on small items. It cannot be scanned omnidirectionally.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Attention:

When entering data to be encoded in GS1 barcodes, you can either enter Application Identifiers (AI) including the brackets, or you can enter the code without brackets, using FNC1 code at the end of each variable-length element in the data. While entering GS1 data, following remarks should be taken into account:

- Do not add the mandatory FNC1 character at the beginning of the data. Dynamic Barcodes will add it automatically.
- For GS1 bar codes intended for encoding AI (01) only, AI has to be omitted, i.e. don't enter '01' at the beginning. It doesn't matter if entered with or without brackets.
- The Composite Component can be created using the same rules for using brackets and [F1]. It's not necessary to keep the same way of entering the Composite Component and the main code.
- If you don't use brackets for entering AI, type [F1] at the end of each variable-length element in the data, to represent a FNC1 terminating character, except when the variable-length element is placed at the end of the whole code.
- You don't need to type [F1] at the end of fixed-length elements.
- Do not mix using [F1] as terminators of variable AI and entering brackets around the AI.

Using brackets	
AI (01)12345678901231	AI AI (30)19(21)123456789012
Fixed length	Variable length
Using [F1]	
01123456789012313019	[F1]21123456789012
AI	AI AI

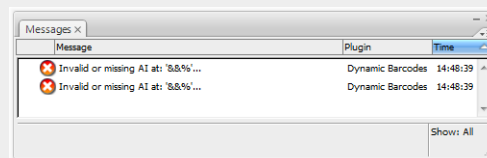
Dynamic Barcodes also checks the validity of the Application Identifiers you enter in the **Code** and / or in the **Composite Component** of GS1 barcodes.

Composite Component

A **Composite Component** is a 2D symbol placed on top of a GS1 barcode, that encodes extra information (batch number, expiration date...).

If you want your barcode to have a **Composite Component**, enter the (alphanumeric) data to encode in this field.

Note: Dynamic Barcodes checks the data you enter for the Composite Component (for example to see if the Application Identifiers you entered are correct), and displays a warning if it is invalid.

**Bar Width Reduction**

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches (“mil”), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches (“mil”), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode. This affects the size (height and width) of your GS1 barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Multiple Text Lines

Select this parameter if you want the human readable characters to be printed on multiple lines below the barcode. Dynamic Barcodes will start a new line for every element of the barcode data (starting with the Application Identifier).



Note: When reopening your document in PackEdge, the characters will be placed back on a single line.

Additional Text Offset

This parameter allows you to add extra space between your barcode bars and the human readable characters.



Note: When reopening your document in PackEdge, the characters will be placed just below the bars again.

7.2.15 GS1 DataBar Expanded

About this Barcode...

GS1 DataBar Expanded (formerly RSS Expanded) encodes regular barcode data (“primary item identification” data) and Application Identifiers. It can encode alphanumeric characters.

This barcode can be scanned omnidirectionally by suitably programmed slot scanners.



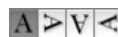
Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

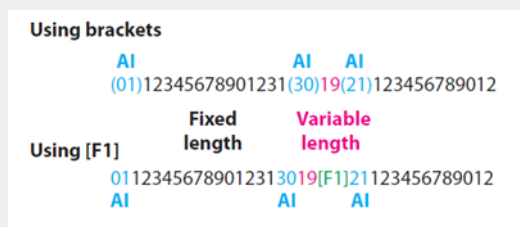
Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Attention:

When entering data to be encoded in GS1 barcodes, you can either enter Application Identifiers (AI) including the brackets, or you can enter the code without brackets, using FNC1 code at the end of each variable-length element in the data. While entering GS1 data, following remarks should be taken into account:

- Do not add the mandatory FNC1 character at the beginning of the data. Dynamic Barcodes will add it automatically.
- For GS1 bar codes intended for encoding AI (01) only, AI has to be omitted, i.e. don't enter '01' at the beginning. It doesn't matter if entered with or without brackets.
- The Composite Component can be created using the same rules for using brackets and [F1]. It's not necessary to keep the same way of entering the Composite Component and the main code.
- If you don't use brackets for entering AI, type [F1] at the end of each variable-length element in the data, to represent a FNC1 terminating character, except when the variable-length element is placed at the end of the whole code.
- You don't need to type [F1] at the end of fixed-length elements.
- Do not mix using [F1] as terminators of variable AI and entering brackets around the AI.



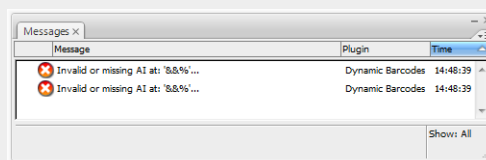
Dynamic Barcodes also checks the validity of the Application Identifiers you enter in the **Code** and / or in the **Composite Component** of GS1 barcodes.

Composite Component

A **Composite Component** is a 2D symbol placed on top of a GS1 barcode, that encodes extra information (batch number, expiration date...).

If you want your barcode to have a **Composite Component**, enter the (alphanumeric) data to encode in this field.

Note: Dynamic Barcodes checks the data you enter for the Composite Component (for example to see if the Application Identifiers you entered are correct), and displays a warning if it is invalid.

**Bar Width Reduction**

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches (“mil”), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches (“mil”), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode. This affects the size (height and width) of your GS1 barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Multiple Text Lines

Select this parameter if you want the human readable characters to be printed on multiple lines below the barcode. Dynamic Barcodes will start a new line for every element of the barcode data (starting with the Application Identifier).



Note: When reopening your document in PackEdge, the characters will be placed back on a single line.

Additional Text Offset

This parameter allows you to add extra space between your barcode bars and the human readable characters.



Note: When reopening your document in PackEdge, the characters will be placed just below the bars again.

7.2.16 GS1 DataBar Expanded Stacked

About this Barcode...

GS1 DataBar Expanded Stacked can encode the same amount of data as GS1 DataBar Expanded, but can also “stack” the barcode into several rows to save space.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

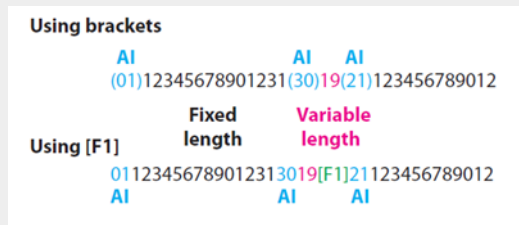
Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Attention:

When entering data to be encoded in GS1 barcodes, you can either enter Application Identifiers (AI) including the brackets, or you can enter the code without brackets, using FNC1 code at the end of each variable-length element in the data. While entering GS1 data, following remarks should be taken into account:

- Do not add the mandatory FNC1 character at the beginning of the data. Dynamic Barcodes will add it automatically.
- For GS1 bar codes intended for encoding AI (01) only, AI has to be omitted, i.e. don't enter '01' at the beginning. It doesn't matter if entered with or without brackets.
- The Composite Component can be created using the same rules for using brackets and [F1]. It's not necessary to keep the same way of entering the Composite Component and the main code.
- If you don't use brackets for entering AI, type [F1] at the end of each variable-length element in the data, to represent a FNC1 terminating character, except when the variable-length element is placed at the end of the whole code.
- You don't need to type [F1] at the end of fixed-length elements.
- Do not mix using [F1] as terminators of variable AI and entering brackets around the AI.



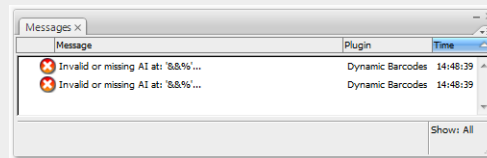
Dynamic Barcodes also checks the validity of the Application Identifiers you enter in the **Code** and / or in the **Composite Component** of GS1 barcodes.

Composite Component

A **Composite Component** is a 2D symbol placed on top of a GS1 barcode, that encodes extra information (batch number, expiration date...).

If you want your barcode to have a **Composite Component**, enter the (alphanumeric) data to encode in this field.

Note: Dynamic Barcodes checks the data you enter for the Composite Component (for example to see if the Application Identifiers you entered are correct), and displays a warning if it is invalid.

**Max. Row Width**

Use this parameter to define how many segments of data (groups of bars encoding several digits) can fit in one row. If the barcode contains more segments, they will be stacked.

In the example below, the first barcode has a **Max. Row Width** of 8 segments. When reducing this to 4 segments, the segments that don't fit in the row width anymore are stacked, forming a second row (second barcode).



Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches (“mil”), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches (“mil”), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode. This affects the size (height and width) of your GS1 barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Multiple Text Lines

To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

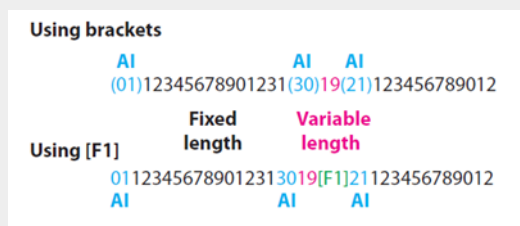
Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Attention:

When entering data to be encoded in GS1 barcodes, you can either enter Application Identifiers (AI) including the brackets, or you can enter the code without brackets, using FNC1 code at the end of each variable-length element in the data. While entering GS1 data, following remarks should be taken into account:

- Do not add the mandatory FNC1 character at the beginning of the data. Dynamic Barcodes will add it automatically.
- For GS1 bar codes intended for encoding AI (01) only, AI has to be omitted, i.e. don't enter '01' at the beginning. It doesn't matter if entered with or without brackets.
- The Composite Component can be created using the same rules for using brackets and [F1]. It's not necessary to keep the same way of entering the Composite Component and the main code.
- If you don't use brackets for entering AI, type [F1] at the end of each variable-length element in the data, to represent a FNC1 terminating character, except when the variable-length element is placed at the end of the whole code.
- You don't need to type [F1] at the end of fixed-length elements.
- Do not mix using [F1] as terminators of variable AI and entering brackets around the AI.



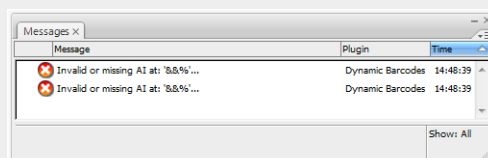
Dynamic Barcodes also checks the validity of the Application Identifiers you enter in the **Code** and / or in the **Composite Component** of GS1 barcodes.

Composite Component

A **Composite Component** is a 2D symbol placed on top of a GS1 barcode, that encodes extra information (batch number, expiration date...).

If you want your barcode to have a **Composite Component**, enter the (alphanumeric) data to encode in this field.

Note: Dynamic Barcodes checks the data you enter for the Composite Component (for example to see if the Application Identifiers you entered are correct), and displays a warning if it is invalid.



Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01 mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode. This affects the size (height and width) of your GS1 barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds "human readable" characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Multiple Text Lines

Select this parameter if you want the human readable characters to be printed on multiple lines below the barcode. Dynamic Barcodes will start a new line for every element of the barcode data (starting with the Application Identifier).



Note: When reopening your document in PackEdge, the characters will be placed back on a single line.

Additional Text Offset

This parameter allows you to add extra space between your barcode bars and the human readable characters.



Note: When reopening your document in PackEdge, the characters will be placed just below the bars again.

7.2.18 GS1 DataMatrix

About this Barcode...

The GS1 Data Matrix barcode is a high density, high capacity, scalable 2D barcode. It is used to concentrate a lot of (alphanumeric) information in a very small space.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

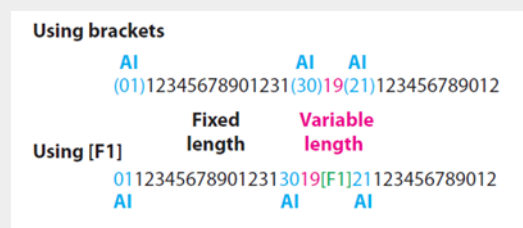
Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Attention:

When entering data to be encoded in GS1 barcodes, you can either enter Application Identifiers (AI) including the brackets, or you can enter the code without brackets, using FNC1 code at the end of each variable-length element in the data. While entering GS1 data, following remarks should be taken into account:

- Do not add the mandatory FNC1 character at the beginning of the data. Dynamic Barcodes will add it automatically.
- For GS1 bar codes intended for encoding AI (01) only, AI has to be omitted, i.e. don't enter '01' at the beginning. It doesn't matter if entered with or without brackets.
- The Composite Component can be created using the same rules for using brackets and [F1]. It's not necessary to keep the same way of entering the Composite Component and the main code.
- If you don't use brackets for entering AI, type [F1] at the end of each variable-length element in the data, to represent a FNC1 terminating character, except when the variable-length element is placed at the end of the whole code.
- You don't need to type [F1] at the end of fixed-length elements.
- Do not mix using [F1] as terminators of variable AI and entering brackets around the AI.



Dynamic Barcodes also checks the validity of the Application Identifiers you enter in the **Code** and / or in the **Composite Component** of GS1 barcodes.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milli-inches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milli-inches ("mil"), millimeters or inches.

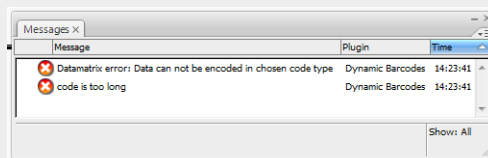
Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Symbol Type

Choose the number of cells to use for your barcode (in the format “horizontal cells x vertical cells”).

Note: If the number of cells you choose for your symbol is too small to encode the data you entered in **Code**, Dynamic Barcodes will display an error.



You can choose **Best Fit** to make Dynamic Barcodes automatically adapt the number of cells to the amount of data you entered in **Code**.

Cell Size

Enter the size you want to give to each cell of the symbol. This affects the size of the whole symbol.

The unit used is the one you chose as Illustrator's **General** unit in the **Units & Display Performance Preferences**.

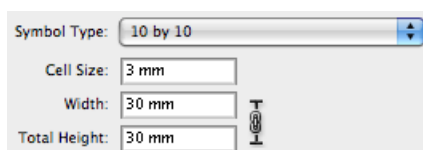
In the example below, the first symbol has a 1 mm cell size (cells sides are 1 mm), and the second one a 2 mm cell size.



Width / Total Height

The **Width** and **Total Height** parameters depend on the **Cell Size** and the number of cells used for the symbol (**Symbol Type**).

In the example below, a symbol of 10 x 10 cells where each cell is 3 mm gives a Width and Total Height of 30 x 30 mm.



Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

Multiple Text Lines

Select this parameter if you want the human readable characters to be printed on multiple lines below the barcode. Dynamic Barcodes will start a new line for every element of the barcode data (starting with the Application Identifier).

Note: When reopening your document in PackEdge, the characters will be placed back on a single line.

Additional Text Offset

This parameter allows you to add extra space between your barcode bars and the human readable characters.

Note: When reopening your document in PackEdge, the characters will be placed just below the bars again.

Box

Use this parameter to create an opaque white box under your barcode.

Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.

By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.

If you want to change them independently, click the link symbol to make it look detached  .

7.2.19 GS1 U.S. Coupon Interim

About this Barcode...

GS1 U.S. Coupon Interim is an interim coupon barcode. It is used during the transition between UPC-A coupons and the new GS1 Databar Expanded Stacked coupons, that can encode more information.

It is made of both an old UPC-A coupon barcode, and a new Databar Expanded Stacked coupon barcode, to be readable by both old and new scanners.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

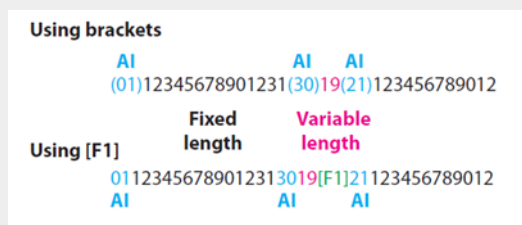
Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Attention:

When entering data to be encoded in GS1 barcodes, you can either enter Application Identifiers (AI) including the brackets, or you can enter the code without brackets, using FNC1 code at the end of each variable-length element in the data. While entering GS1 data, following remarks should be taken into account:

- Do not add the mandatory FNC1 character at the beginning of the data. Dynamic Barcodes will add it automatically.
- For GS1 bar codes intended for encoding AI (01) only, AI has to be omitted, i.e. don't enter '01' at the beginning. It doesn't matter if entered with or without brackets.
- The Composite Component can be created using the same rules for using brackets and [F1]. It's not necessary to keep the same way of entering the Composite Component and the main code.
- If you don't use brackets for entering AI, type [F1] at the end of each variable-length element in the data, to represent a FNC1 terminating character, except when the variable-length element is placed at the end of the whole code.
- You don't need to type [F1] at the end of fixed-length elements.
- Do not mix using [F1] as terminators of variable AI and entering brackets around the AI.



Dynamic Barcodes also checks the validity of the Application Identifiers you enter in the **Code** and / or in the **Composite Component** of GS1 barcodes.

Use “992” Prod. Family in UPC

Enable this parameter to use the special “992” product family in your barcode (for specific offers like discounts on the customer's next purchase or on variable weight items...).

GS1 Max. Row Width

This parameter applies to the GS1 Databar Expanded Stacked component of the GS1 U.S. Coupon Interim barcode.

Use this parameter to define how many segments of data (groups of bars encoding several digits) can fit in one row. If the barcode contains more segments, they will be stacked.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

UPC Magnification

Use this parameter to increase or decrease the size of the UPC barcode only (this changes the width and height proportionally).

GS1 Narrow Bar

This parameter determines the width of the narrowest bar of your GS1 barcode (and affects its width proportionally).

UPC / GS1 Gap (inches)

Enter the distance you want to have between the UPC and the GS1 barcodes, in inches. You can also choose one of the default values in the list.

Vertical Alignment

Dynamic Barcodes allows you to resize either the UPC-A or the GS1 Databar Expanded Stacked coupon barcode, so they are aligned vertically with each other. You can choose:

- **None** to keep the original size of both the UPC and the GS1 barcodes,



- **Resize UPC to GS1** to resize the UPC barcode so it has the same height as the GS1 barcode,



- **Resize GS1 to UPC** to resize the GS1 barcode so it has the same height as the UPC barcode.



Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

7.2.20 HIBC 128

About this Barcode...

This barcode is based on the Code 128 symbology.

It encodes the organization's primary and / or secondary Labeler Identification Code (LIC). This encoding begins with the “+” character. If both primary and secondary Labeler Identification Codes are encoded in one barcode, they are divided by the “/” character.



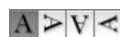
Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches (“mil”), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Magnification

Use this parameter to increase or decrease the barcode size proportionally.

In the example below, you can see the same barcode at 80%, 100% and 120% magnification.



Height

Enter the height to give to your barcode (this is the combined height of the bars and the human readable characters). Your barcode needs to be tall enough to be read easily by barcode scanners.

Attention: Do not change the **Height** of the barcode before entering a **Magnification** value. The **Height** will change again according to the **Magnification** factor you define.

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds "human readable" characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.



If you want to change them independently, click the link symbol to make it look detached .

7.2.21 HIBC 39

About this Barcode...

This barcode is based on the Code 39 symbology.

It encodes the organization's primary and / or secondary Labeler Identification Code (LIC). This encoding begins with the "+" character. If both primary and secondary Labeler Identification Codes are encoded in one barcode, they are divided by the "/" character.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Magnification

Use this parameter to increase or decrease the barcode size proportionally.

In the example below, you can see the same barcode at 80%, 100% and 120% magnification.



Height

Enter the height to give to your barcode (this is the combined height of the bars and the human readable characters). Your barcode needs to be tall enough to be read easily by barcode scanners.

Attention: Do not change the **Height** of the barcode before entering a **Magnification** value. The **Height** will change again according to the **Magnification** factor you define.

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.



If you want to change them independently, click the link symbol to make it look detached  .

7.2.22 ITF-14

About this Barcode...

ITF-14 is a standardized version of the Interleaved 2 of 5 barcode, containing 14 digits, the last being a check digit.



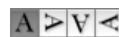
Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Text Format

Choose a variant of the Shipping Container Symbol text format for the human readable characters of your barcode.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Magnification

Use this parameter to increase or decrease the barcode size proportionally.

Height

Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

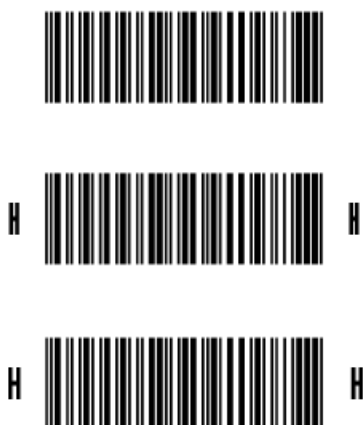
Total Height

Enter the total height you want to give to your barcode. This is the combined height of the bars, the human readable characters and the box. If your barcode doesn't contain human readable characters or a box, the **Total Height** is the same as the bars' **Height**.

Smax / Smin

Use these parameters to define the width of the printability gauges ("H" marks) either side of your barcode. **Smax** defines the width of the left "H", **Smin** defines the width of the right "H". Enter 0 in both fields if you don't want printability gauges.

In the example below, the top barcode has a value of 0 for both **Smax** and **Smin**, the middle one has a value of 4 and the bottom one has a value of 8 (the maximum).



Add Human Readable Characters

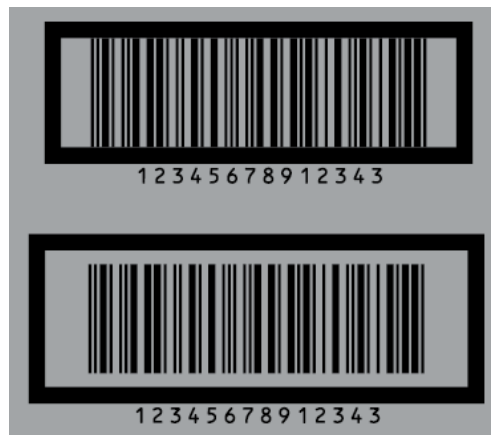
This parameter adds "human readable" characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

Box

Use this parameter to create a transparent box under your barcode, and bearer bars around it.

Use the **Top**, **Bottom**, **Left** and **Right** fields to make the box bigger.

In the example below, the top barcode has a 0 mm **Box** around it, and the bottom barcode a 4 mm **Box**.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.



If you want to change them independently, click the link symbol to make it look detached .

7.2.23 ITF-16

About this Barcode...

ITF-16 is a standardized version of the Interleaved 2 of 5 barcode, containing 16 digits, the last being a check digit.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Text Format

Choose a variant of the Shipping Container Symbol text format for the human readable characters of your barcode.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Magnification

Use this parameter to increase or decrease the barcode size proportionally.

Height

Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Total Height

Enter the total height you want to give to your barcode. This is the combined height of the bars, the human readable characters and the box. If your barcode doesn't contain human readable characters or a box, the **Total Height** is the same as the bars' **Height**.

Smax / Smin

Use these parameters to define the width of the printability gauges ("H" marks) either side of your barcode. **Smax** defines the width of the left "H", **Smin** defines the width of the right "H". Enter 0 in both fields if you don't want printability gauges.

In the example below, the top barcode has a value of 0 for both **Smax** and **Smin**, the middle one has a value of 4 and the bottom one has a value of 8 (the maximum).



Add Human Readable Characters

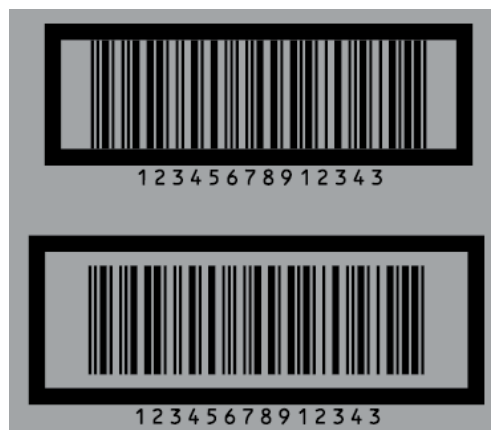
This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

Box

Use this parameter to create a transparent box under your barcode, and bearer bars around it.

Use the **Top**, **Bottom**, **Left** and **Right** fields to make the box bigger.

In the example below, the top barcode has a 0 mm **Box** around it, and the bottom barcode a 4 mm **Box**.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.

<input checked="" type="checkbox"/> Box	Top: 1 mm		Left: 1 mm
	Bottom: 1 mm		Right: 1 mm

If you want to change them independently, click the link symbol to make it look detached .

7.2.24 Interleaved 2 of 5

About this Barcode...

Interleaved 2 of 5 (or Int. 2 of 5) is a barcode originally used for transportation packaging, that can have any even number of digits. Since this type of packaging consists mainly of cardboard boxes printed in low quality, the Interleaved 2 of 5 barcode is more tolerant to distortion than other barcodes.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milli-inches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milli-inches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Height

Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Characters per unit

This parameter allows you to define your barcode's width based on the encoding of (numeric or alphanumeric) characters.

You can choose the unit to use: **micron**, **mil** (milli-inches), **mm** or **inch**.

For example, choose **mm** and use **1 Character per unit** in the **Dynamic Barcodes** dialog if you want the bars needed to encode one character to take up 1 mm.



Increase the **Characters per unit** value to make the barcode narrower, or decrease it to make the barcode wider. For example, if you choose **0.5 Character per unit**, the bars needed to encode one character will take up 2 mm.



Note: Barcodes like Interleaved 2 of 5 encode two characters together in a group of black and white bars. For these barcodes, Dynamic Barcodes takes half of the group of black and white bars to measure one character.



Ratio

The **Ratio** is the factor between the width of the narrow bar and the width of the wide bar in your barcode. For example, enter 3 if you want your wide bar to be three times as wide as your narrow bar.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode (and affects the width of your barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.



If you want to change them independently, click the link symbol to make it look detached .

7.2.25 Laetus Pharma Code

About this Barcode...

This barcode was developed specifically to meet the requirements of the pharmaceutical packaging process. It has established itself as the worldwide pharmaceutical industry barcode standard. It can encode numeric or binary data.



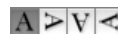
Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Miniature

Use this option to create a miniature version of the bar code

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Height

Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode (and affects the width of your barcode proportionally).

Ratio

The **Ratio** is the factor between the width of the narrow bar and the width of the wide bar in your barcode. For example, enter 3 if you want your wide bar to be three times as wide as your narrow bar.

Wide Bar

This parameter determines the width of the widest bar of your barcode.

Gap

Enter the width of the white space between the bars.

Note: The **Ratio** influences the **Gap** size: increasing the **Ratio** also increases the **Gap** size.

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Decimal Input

Use this parameter to change the type of data you can enter in the **Code** field.

- Disable it to enter the data to encode in binary format.
- Enable it to enter the data in numeric instead of binary format.

Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.

<input checked="" type="checkbox"/> Box	Top: 1 mm		Left: 1 mm
	Bottom: 1 mm		Right: 1 mm

If you want to change them independently, click the link symbol to make it look detached

7.2.26 M+S 7

About this Barcode...

The M+S 7 barcode is an EAN 8 barcode modified by Marks & Spencer's, for use on own-brand products sold in their stores.

To make the M+S 7 barcode, the initial "0" is removed and the extra letters "M" and "S" are added to the human readable characters.

This means that the human readable characters contain seven digits plus the "M" and "S" letters.

Note: This doesn't affect the data encoded in the barcode (it still encodes eight digits), so you should enter eight digits when creating a M+S 7 barcode.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Magnification

Use this parameter to increase or decrease the barcode size proportionally.

Height

Enter the height to give to your barcode (this is the combined height of the bars and the human readable characters). Your barcode needs to be tall enough to be read easily by barcode scanners.

Attention: Do not change the **Height** of the barcode before entering a **Magnification** value. The **Height** will change again according to the **Magnification** factor you define.

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

Box

Use this parameter to create a transparent box under your barcode, and bearer bars around it.

Use the **Top**, **Bottom**, **Left** and **Right** fields to make the box bigger.

By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.



If you want to change them independently, click the link symbol to make it look detached .

7.2.27 MSI

About this Barcode...

MSI, also known as Modified Plessey, was developed by the MSI Data Corporation, based on the original Plessey Code. It is a numeric barcode used primarily to mark retail shelves for inventory control.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Height

Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Characters per unit

This parameter allows you to define your barcode's width based on the encoding of (numeric or alphanumeric) characters.

You can choose the unit to use: **micron**, **mil** (milliinches), **mm** or **inch**.

For example, choose **mm** and use **1 Character per unit** in the **Dynamic Barcodes** dialog if you want the bars needed to encode one character to take up 1 mm.



Increase the **Characters per unit** value to make the barcode narrower, or decrease it to make the barcode wider. For example, if you choose **0.5 Character per unit**, the bars needed to encode one character will take up 2 mm.



Ratio

The **Ratio** is the factor between the width of the narrow bar and the width of the wide bar in your barcode. For example, enter 3 if you want your wide bar to be three times as wide as your narrow bar.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode (and affects the width of your barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.



If you want to change them independently, click the link symbol to make it look detached .

7.2.28 Marks & Spencer's

About this Barcode...

The Marks & Spencer's barcode is also an EAN 8 barcode modified by Marks & Spencer's for use on own-brand products.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Magnification

Use this parameter to increase or decrease the barcode size proportionally.

In the example below, you can see the same barcode at 80%, 100% and 120% magnification.



Height

Enter the height to give to your barcode (this is the combined height of the bars and the human readable characters). Your barcode needs to be tall enough to be read easily by barcode scanners.

Attention: Do not change the **Height** of the barcode before entering a **Magnification** value. The **Height** will change again according to the **Magnification** factor you define.

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds "human readable" characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.

<input checked="" type="checkbox"/> Box	Top: 1 mm		Left: 1 mm
	Bottom: 1 mm		Right: 1 mm

If you want to change them independently, click the link symbol to make it look detached

7.2.29 NDC / HRI

About this Barcode...

The NDC / HRI barcode is a variant of the UPC barcode with special human readable interpretation formats compliant to the US National Drug Code definition.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Text Format

Choose a variant of the U.S. National Drug Code text format for the human readable characters of your barcode.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Magnification

Use this parameter to increase or decrease the barcode size proportionally.

In the example below, you can see the same barcode at 80%, 100% and 120% magnification.



Height

Enter the height to give to your barcode (this is the combined height of the bars and the human readable characters). Your barcode needs to be tall enough to be read easily by barcode scanners.

Attention: Do not change the **Height** of the barcode before entering a **Magnification** value. The **Height** will change again according to the **Magnification** factor you define.

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.

<input checked="" type="checkbox"/> Box	Top: 1 mm		Left: 1 mm
	Bottom: 1 mm		Right: 1 mm

If you want to change them independently, click the link symbol to make it look detached .

7.2.30 PZN

About this Barcode...

The PZN (Pharma-Zentral-Nummer) barcode is used for distribution of pharmaceutical and healthcare products in Germany. It encodes the letters “PZN” and up to seven digits of data.



PZN-0000000

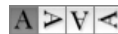
Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches (“mil”), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches (“mil”), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Size

Choose to give your PZN barcode a **Small**, **Normal** or **Large** size. Those are predefined sizes for this barcode. The actual Height, Characters per unit, Ratio and Narrow Bar values are shown underneath.

By selecting **Custom**, you can manually edit these four parameters.

Height

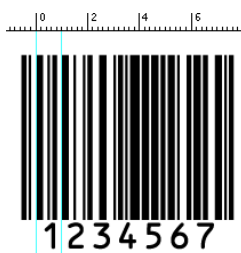
Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Characters per unit

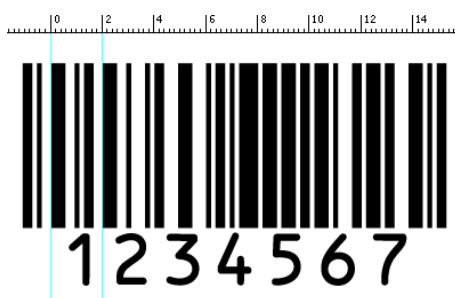
This parameter allows you to define your barcode's width based on the encoding of (numeric or alphanumeric) characters.

You can choose the unit to use: **micron**, **mil** (milli-inches), **mm** or **inch**.

For example, choose **mm** and use **1 Character per unit** in the **Dynamic Barcodes** dialog if you want the bars needed to encode one character to take up 1 mm.



Increase the **Characters per unit** value to make the barcode narrower, or decrease it to make the barcode wider. For example, if you choose **0.5 Character per unit**, the bars needed to encode one character will take up 2 mm.



Ratio

The **Ratio** is the factor between the width of the narrow bar and the width of the wide bar in your barcode. For example, enter 3 if you want your wide bar to be three times as wide as your narrow bar.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode (and affects the width of your barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.

<input checked="" type="checkbox"/> Box	Top: 1 mm		Left: 1 mm
	Bottom: 1 mm		Right: 1 mm

If you want to change them independently, click the link symbol to make it look detached .

7.2.31 PZN8

About this Barcode...

The PZN8 (Pharma-Zentral-Nummer) barcode is used for distribution of pharmaceutical and healthcare products in Germany. It encodes the letters “PZN” and up to eight digits of data.



PZN-00000000

Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches (“mil”), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches (“mil”), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Size

Choose to give your PZN barcode a **Small**, **Normal** or **Large** size. Those are predefined sizes for this barcode. The actual Height, Characters per unit, Ratio and Narrow Bar values are shown underneath.

By selecting **Custom**, you can manually edit these four parameters.

Height

Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Characters per unit

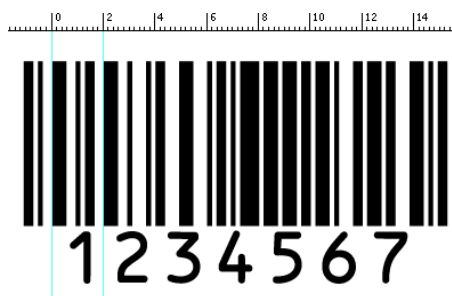
This parameter allows you to define your barcode's width based on the encoding of (numeric or alphanumeric) characters.

You can choose the unit to use: **micron**, **mil** (milli-inches), **mm** or **inch**.

For example, choose **mm** and use **1 Character per unit** in the **Dynamic Barcodes** dialog if you want the bars needed to encode one character to take up 1 mm.



Increase the **Characters per unit** value to make the barcode narrower, or decrease it to make the barcode wider. For example, if you choose **0.5 Character per unit**, the bars needed to encode one character will take up 2 mm.



Ratio

The **Ratio** is the factor between the width of the narrow bar and the width of the wide bar in your barcode. For example, enter 3 if you want your wide bar to be three times as wide as your narrow bar.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode (and affects the width of your barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.

<input checked="" type="checkbox"/> Box	Top: 1 mm		Left: 1 mm
	Bottom: 1 mm		Right: 1 mm

If you want to change them independently, click the link symbol to make it look detached .

7.2.32 Paraf Italy

About this Barcode...

This barcode is a variant of Code 39 used by the Italian Health and Cosmetics Industry. It is also called Code 32.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code Base32

Use this field when your barcode data is encoded in the Base 32 format. This format uses case-insensitive alphanumeric characters to encode data.

Code Base10

Use this field when your barcode data is in decimal format. Paraf Italy barcodes in decimal format should start with an "A" (included automatically by Dynamic Barcodes), have 8 digits of data and end with a check digit (calculated automatically by Dynamic Barcodes).

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milli-inches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milli-inches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Height

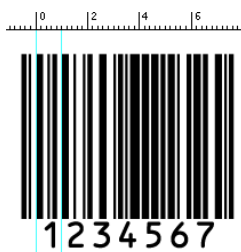
Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Characters per unit

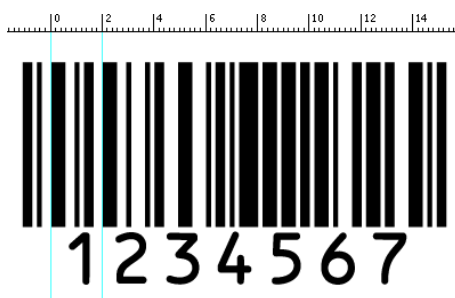
This parameter allows you to define your barcode's width based on the encoding of (numeric or alphanumeric) characters.

You can choose the unit to use: **micron**, **mil** (milli-inches), **mm** or **inch**.

For example, choose **mm** and use **1 Character per unit** in the **Dynamic Barcodes** dialog if you want the bars needed to encode one character to take up 1 mm.



Increase the **Characters per unit** value to make the barcode narrower, or decrease it to make the barcode wider. For example, if you choose **0.5 Character per unit**, the bars needed to encode one character will take up 2 mm.



Narrow Bar

This parameter determines the width of the narrowest bar of your barcode (and affects the width of your barcode proportionally).

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.

<input checked="" type="checkbox"/> Box	Top: 1 mm		Left: 1 mm
	Bottom: 1 mm		Right: 1 mm

If you want to change them independently, click the link symbol to make it look detached

7.2.33 PDF417

About this Barcode...

PDF417 is a 2D barcode mainly used in security printing (passports, identity cards, driving licences...).

It is a “self-checking” barcode that can have different levels of error correction.

It can encode data using one of three “compaction” modes: Text (to encode all alphanumeric and punctuation characters in the ISO-8859-1 character set), Numeric (to encode only numeric characters) or Binary (to encode 8-bit characters).

It can use the three compaction modes in a single barcode if necessary, but you can choose to disable the Text and/or Numeric compaction modes.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode (and affects the width of your barcode proportionally).

Height

Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Columns

You can give your barcode between 1 and 30 **Columns**. The number of columns corresponds to the number of PDF417 codewords.

Rows

You can give your barcode between 3 and 90 **Rows**.

Truncated

Choose **Truncated** to make the symbol less wide by truncating the end character (which is not part of the encoded data) and the end pattern. In the example below, the top PDF417 barcode is not truncated, and the bottom barcode is truncated (but encodes the same data).



Initialize in Alpha Submode

Choose this option to generate a “shift to Text mode” character at the beginning of the barcode when using Text compaction mode. This makes the encoding clear for barcode scanners.

Allow Text Compaction

Choose this to let Dynamic Barcodes switch to Text compaction mode automatically when your barcode contains text data.

This encodes the text data in your barcode more efficiently (it makes that part of your barcode smaller).

Allow Numeric Compaction

Choose this to let Dynamic Barcodes switch to Numeric compaction mode automatically when your barcode contains numeric data.

This encodes the numeric data in your barcode more efficiently.

Note:

Dynamic Barcodes can always switch to the Binary compaction mode if your barcode contains binary data.

If you don't enable either **Allow Text Compaction** or **Allow Numeric Compaction**, Dynamic Barcodes will only use Binary compaction mode.

Error Correction Level

Error correction adds check sums to the barcode to detect and correct incorrect data. You can choose an **Error correction level** from 0 to 8.

The higher the correction level, the more check sums are added to the barcode and the more incorrect data can be corrected. Keep in mind that a higher correction level makes the barcode bigger and may limit the maximum length of the encoded data.

Note: Level 0 means that there is only one check sum added to the data, so incorrect data can be detected but not corrected.

You can choose **Automatic** to let the plug-in pick the best error correction level for the data encoded.

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction** and **Device Compensation**) so that the bars' width take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Box

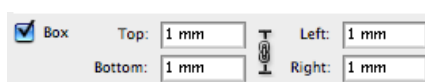
Use this parameter to create a transparent box under your barcode, and bearer bars around it.

Use the **Top**, **Bottom**, **Left** and **Right** fields to make the box bigger.

In the example below, the top barcode has a 0 mm **Box** around it, and the bottom barcode a 3 mm **Box**.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.



If you want to change them independently, click the link symbol to make it look detached .

7.2.34 MicroPDF417

About this Barcode...

MicroPDF417 is a 2D multi-row barcode derived from PDF417, for use on smaller areas. It can encode up to 150 bytes.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milli-inches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milli-inches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode (and affects the width of your barcode proportionally).

Height

Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Columns

You can give your barcode between 1 and 4 **Columns**.

Rows

You can give your barcode between 4 and 44 **Rows**.

Allow Text Compaction

Choose this to let Dynamic Barcodes switch to Text compaction mode automatically when your barcode contains text data.

This encodes the text data in your barcode more efficiently (it makes that part of your barcode smaller).

Allow Numeric Compaction

Choose this to let Dynamic Barcodes switch to Numeric compaction mode automatically when your barcode contains numeric data.

This encodes the numeric data in your barcode more efficiently.

Note:

Dynamic Barcodes can always switch to the Binary compaction mode if your barcode contains binary data.

If you don't enable either **Allow Text Compaction** or **Allow Numeric Compaction**, Dynamic Barcodes will only use Binary compaction mode.

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction** and **Device Compensation**) so that the bars' width take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Box

Use this parameter to create a transparent box under your barcode, and bearer bars around it.

Use the **Top**, **Bottom**, **Left** and **Right** fields to make the box bigger.

In the example below, the top barcode has a 0 mm **Box** around it, and the bottom barcode a 3 mm **Box**.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.

<input checked="" type="checkbox"/> Box	Top: 1 mm		Left: 1 mm
	Bottom: 1 mm		Right: 1 mm

If you want to change them independently, click the link symbol to make it look detached .

7.2.35 UPC-A

About this Barcode...

Universal Product Code or UPC is the standard for article numbering in the U.S.A. and Canada. It is similar to the EAN system and compatible with it. For more information on EAN, see [EAN 13](#).



UPC-A is a numeric barcode of up to twelve digits, plus two or five additional digits.



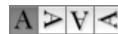
Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Magnification

Use this parameter to increase or decrease the barcode size proportionally.

In the example below, you can see the same barcode at 80%, 100% and 120% magnification.



Height

Enter the height to give to your barcode (this is the combined height of the bars and the human readable characters). Your barcode needs to be tall enough to be read easily by barcode scanners.

Attention: Do not change the **Height** of the barcode before entering a **Magnification** value. The **Height** will change again according to the **Magnification** factor you define.

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.

<input checked="" type="checkbox"/> Box	Top: 1 mm		Left: 1 mm
	Bottom: 1 mm		Right: 1 mm

If you want to change them independently, click the link symbol to make it look detached

7.2.36 UPC-E

About this Barcode...

UPC-E is an abbreviated version of UPC-A, for use on smaller packages. It is a numeric barcode of up to eight digits and can have two additional digits.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Magnification

Use this parameter to increase or decrease the barcode size proportionally.

In the example below, you can see the same barcode at 80%, 100% and 120% magnification.



Height

Enter the height to give to your barcode (this is the combined height of the bars and the human readable characters). Your barcode needs to be tall enough to be read easily by barcode scanners.

Attention: Do not change the **Height** of the barcode before entering a **Magnification** value. The **Height** will change again according to the **Magnification** factor you define.

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Add Human Readable Characters

This parameter adds "human readable" characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:



Box

Use this parameter to create an opaque white box under your barcode.



Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.

<input checked="" type="checkbox"/> Box	Top: 1 mm		Left: 1 mm
	Bottom: 1 mm		Right: 1 mm

If you want to change them independently, click the link symbol to make it look detached

7.2.37 UPC-SCS

About this Barcode...

The UPC-SCS (Shipping Container Symbol) barcode is a version of the Interleaved 2 of 5 barcode that has a structure very similar to the Universal Product Code's (UPC) and specific formatting of the human readable interpretation.



Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Text Format

Choose a variant of the Shipping Container Symbol text format for the human readable characters of your barcode.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Magnification

Use this parameter to increase or decrease the barcode size proportionally.

In the example below, you can see the same barcode at 80%, 100% and 120% magnification.



Height

Enter the height to give to your barcode's bars. They need to be tall enough to be read easily by barcode scanners.

Snap Bars to Output Resolution

Use this to adjust the barcode size parameters (**Bar Width Reduction**, **Device Compensation** and **Magnification**) so that the bars' width and height take up a complete number of pixels or dots.

Enable **Snap Bars to Output Resolution** and enter the resolution you will use to print your barcode in ppi.

Total Height

Enter the total height you want to give to your barcode. This is the combined height of the bars, the human readable characters and the box. If your barcode doesn't contain human readable characters or a box, the **Total Height** is the same as the bars' **Height**.

Add Human Readable Characters

This parameter adds “human readable” characters (numeric or alphanumeric characters) under your barcode. It is enabled by default.

This is the same barcode with and without human readable characters:

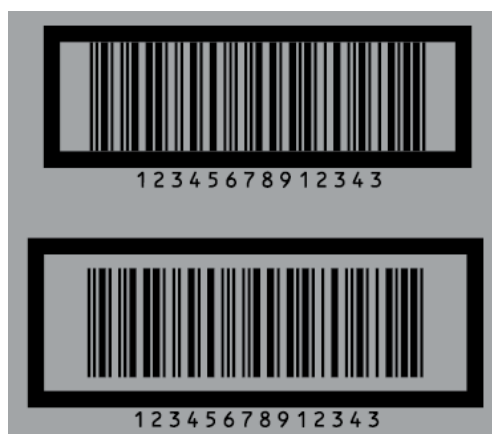


Box

Use this parameter to create a transparent box under your barcode, and bearer bars around it.

Use the **Top**, **Bottom**, **Left** and **Right** fields to make the box bigger.

In the example below, the top barcode has a 0 mm **Box** around it, and the bottom barcode a 4 mm **Box**.



By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.



If you want to change them independently, click the link symbol to make it look detached  .

7.2.38 QR

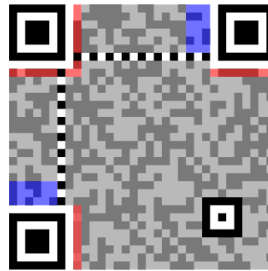
About this Barcode...







The QR barcode is a 2-dimensional barcode used for commercial tracking and convenience-oriented applications aimed at mobile phone users (known as "mobile tagging").

QR codes storing addresses and URLs may appear in magazines, on signs, buses, business cards, or other objects... Users with a camera phone equipped with the correct reader application can scan the QR code to display text, contact information, connect to a wireless network, or open a web page in the phone's browser.



QR codes have the following structure:



-  Position pattern (required)
-  Alignment pattern (required)
-  Timing pattern (required)
-  Version information
-  Format information
-  Data and error correction keys

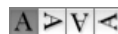
Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Minimum Symbol Size

Choose the number of cells to use for your barcode (in the format "horizontal cells x vertical cells").

Note: If the number of cells you choose for your symbol is too small to encode the data you entered in **Code**, Dynamic Barcodes will use a bigger symbol size automatically.

Error Correction

Error correction adds check sums to the barcode to detect and correct incorrect data. You can choose one of the following **Error correction** levels:

- Level L: 7% of codewords can be restored.
- Level M: 15% of codewords can be restored.
- Level Q: 25% of codewords can be restored.
- Level H: 30% of codewords can be restored.

Note: Keep in mind that a higher correction level makes the barcode bigger (as more check sums are added to the barcode) and may limit the maximum length of the encoded data.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Cell Size

Enter the size you want to give to each cell of the symbol. This affects the size of the whole symbol.

The unit used is the one you chose as Illustrator's **General** unit in the **Units & Display Performance Preferences**.

In the example below, the first symbol has a 1 mm cell size (cells sides are 1 mm), and the second one a 2 mm cell size.



Width / Height

The **Width** and **Height** parameters depend on the **Cell Size** and the number of cells used for the symbol (**Minimum Symbol Size**).

For example, a symbol of 25 x 25 cells where each cell is 2 mm gives a Width and Height of 50 x 50 mm.

Box

Use this parameter to create an opaque white box under your barcode.

Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.

By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.



If you want to change them independently, click the link symbol to make it look detached .

7.2.39 MicroQR

About this Barcode...

The Micro QR Code is a very small QR Code for use on smaller spaces (for example to encode the ID of printed circuit boards and electronics parts).

It works with smaller amounts of data (maximum 35 numeric characters), and uses only one position pattern.



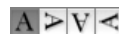
Parameters

Barcode Type

To create a barcode of this type, select it in the **Barcode Type** parameter. This displays parameters specific to this barcode type in the **Dynamic Barcodes** dialog.

Rotation

To rotate your barcode by 90, 180 or 270 degrees, use the **Rotation** buttons.



To rotate it by any other angle, enter that angle in the **Rotation** field.

Code

Enter the data to encode in your barcode.

Dynamic Barcodes checks that the data you have entered is valid for your chosen **Barcode Type**. If it isn't, a warning / error will pop up.

Minimum Symbol Size

Choose the number of cells to use for your barcode (in the format "horizontal cells x vertical cells").

Note: If the number of cells you choose for your symbol is too small to encode the data you entered in **Code**, Dynamic Barcodes will use a bigger symbol size automatically.

Error Correction

Error correction adds check sums to the barcode to detect and correct incorrect data. You can choose one of the following **Error correction** levels:

- **Level L:** 7% of codewords can be restored.
- **Level M:** 15% of codewords can be restored.
- **Level Q:** 25% of codewords can be restored.
- **Level H:** 30% of codewords can be restored.

Note: Keep in mind that a higher correction level makes the barcode bigger (as more check sums are added to the barcode) and may limit the maximum length of the encoded data.

Bar Width Reduction

Use this to adjust the width of barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01mm, you should use a **Bar Width Reduction** value of 0.01 mm.

You can enter the **Bar Width Reduction** in microns, milliinches ("mil"), millimeters or inches.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.

You can enter the **Device Compensation** in microns, milliinches ("mil"), millimeters or inches.

Note: If you use both a Bar Width Reduction and a Device Compensation value, Dynamic Barcodes will add them to adjust the bar's width.

Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Cell Size

Enter the size you want to give to each cell of the symbol. This affects the size of the whole symbol.

The unit used is the one you chose as Illustrator's **General** unit in the **Units & Display Performance Preferences**.

In the example below, the first symbol has a 1 mm cell size (cells sides are 1 mm), and the second one a 2 mm cell size.



Width / Height

The **Width** and **Height** parameters depend on the **Cell Size** and the number of cells used for the symbol (**Minimum Symbol Size**).

For example, a symbol of 15 x 15 cells where each cell is 2 mm gives a Width and Height of 30 x 30 mm.

Box

Use this parameter to create an opaque white box under your barcode.

Use the **Top**, **Bottom**, **Left** and **Right** fields to add a white margin around your barcode and make the box bigger.

By default, Dynamic Barcodes links the four margins' values so that when you change one of them, the other ones are updated automatically.

The screenshot shows a user interface for the 'Box' parameter. On the left, there is a checkbox labeled 'Box' which is checked. To its right is a central vertical link icon. Further right are four input fields arranged in a 2x2 grid. The top row contains 'Top: 1 mm' and 'Left: 1 mm'. The bottom row contains 'Bottom: 1 mm' and 'Right: 1 mm'. The link icon is positioned between the top and bottom rows of input fields.

If you want to change them independently, click the link symbol to make it look detached .