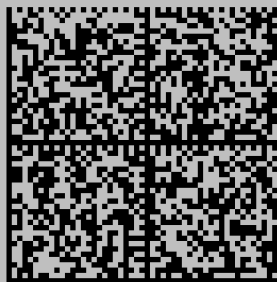


PSTricks

pst-barcode

A PSTricks package for drawing bar codes; v.0.13

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The `pstricks` related package provides (essentially) one macro for printing barcodes. The type of the code is defined by a parameter and passed to `postscript`.

1 Introduction

The `pstricks` package provides (essentially) one macro for printing barcodes. The type of the code is defined by a parameter and passed to `postscript`. To install the package put the three files in a place, where $\text{T}_{\text{E}}\text{X}$ will search for the files:

<i>name</i>	<i>meaning</i>	<i>target dir</i>
<code>pst-barcode.tex</code>	\LaTeX style file – wrapper	<code>\$LOCALTEXMF/tex/generic/pstricks/</code>
<code>pst-barcode.sty</code>	$\text{T}_{\text{E}}\text{X}$ file – PS interface	<code>\$LOCALTEXMF/tex/latex/pstricks/</code>
<code>pst-barcode.pro</code>	PostScript file	<code>\$LOCALTEXMF/dvips/pstricks/</code>
<code>pst-barcode-doc.tex</code>	documentation source	<code>\$LOCALTEXMF/doc/pstricks/</code>
<code>pst-barcode-doc.bib</code>	bibliography source	<code>\$LOCALTEXMF/doc/pstricks/</code>
<code>pst-barcode-doc.pdf</code>	documentation	<code>\$LOCALTEXMF/doc/pstricks/</code>

There is only one macro `\psbarcode` with the usual `PSTricks` syntax

`\psbarcode [Options] {text or filename}{PS options}{barcode type}`

Important is the fact, that the barcode is printed in a $\text{T}_{\text{E}}\text{X}$ box of zero dimension. If you want to save some space in your text, use the `pspicture` environment or the `\makebox` macro.

2 The options

2.1 The $\text{T}_{\text{E}}\text{X}$ options

<i>name</i>	<i>default</i>	<i>remarks</i>
<code>transx</code>	0	horizontal shift
<code>transy</code>	0	vertical shift
<code>scalex</code>	1	horizontal scaling
<code>scaley</code>	1	vertical scaling
<code>rotate</code>	0	rotating angle in degrees
<code>file</code>	false	load an external file for the text

2.2 The PostScript options

<i>name</i>	<i>default</i>	<i>remarks</i>
height	1	dimension is inch
textsize	10	dimension is pt
textpos	-2	dimension is pt; it is the shift for additional code text
inkspread	0.15	dimension is pt
showborder	-	-
borderwidth	0.5	dimension in pt
borderleft	10	dimension in pt
borderright	10	dimension in pt
bordertop	1	dimension in pt
borderbottom	1	dimension in pt
borderwidth	0.5	dimension in pt
width	-	dimension in inch
font	/Helvetica	must be a PostScript font
includetext	-	enable human readable text
includecheck	-	enable check digit
includecheckintext	-	check digit visible in text
parse	-	parse variable field für decimal values, like ^032 for space, and convert them to ASCII

2.3 Examples for the TeX options



```

\psframebox{\begin{pspicture}(2.5,1in)
\psbarcode{01335583}{includetext}{ean8}
\end{pspicture}}\quad
\psframebox{\begin{pspicture}(-2.6,-1.5)(0.4,0.2in)
\psbarcode[rotate=180,linecolor=red]{01335583}{includetext guardwhitespace height=0.6}{ean8}
\end{pspicture}}\quad
\psframebox{\begin{pspicture}(3.8,1in)
\psbarcode[scalex=1.5,scaley=0.5,transy=1]{01335583}{includetext inkspread=0.5}{ean8}
\end{pspicture}}

```



```
\begin{pspicture}(2in,2in)  
  \psbarcode[file]{demo.tex}{}{qrcode}  
\end{pspicture}
```

The contents of the external file `demo.tex`:

```
\documentclass{article}  
\usepackage{pst-barcode,fancyvrb}  
\begin{document}  
\VerbatimInput{\jobname.tex}% test  
  
\begin{pspicture}(2in,2in)  
  \psbarcode[file]{\jobname.tex}{}{qrcode}  
\end{pspicture}  
\end{document}
```

2.4 Examples for the PostScript options



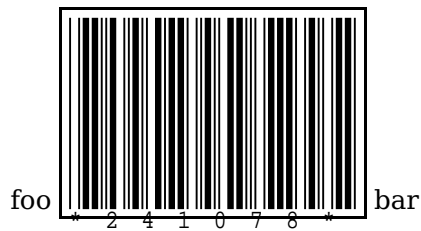
```
\begin{pspicture}(3.5,1.2in)
\psbarcode{01335583}{includetext guardwhitespace height=0.6}{ean8}
\end{pspicture}
\begin{pspicture}(3.5,1.2in)
\psbarcode{01335583}{textsize=15 includetext guardwhitespace height=0.6}{ean8}
\end{pspicture}
\begin{pspicture}(3.5,1.2in)
\psbarcode{01335583}{includetext inkspread=0.5}{ean8}
\end{pspicture}
\begin{pspicture}(3.5,1.2in)
\psbarcode{01335583}{includetext textpos=0}{ean8}
\end{pspicture}
```



```
\begin{pspicture}(3.5,1.2in)
\psbarcode{01335583}{includetext guardwhitespace}{ean8}
\end{pspicture}
\begin{pspicture}(3.5,1.2in)
\psbarcode{01335583}{textsize=15 includetext guardwhitespace width=2}{ean8}
\end{pspicture}
```

3 Usage

By default the barcode has a width and a height of zero. Using the `\parbox` macro or the `pspicture` environment can reserve the needed space for the barcode. The `\fbox` in the following examples is used only for demonstration.



```
foo
\fbbox{%
\parbox[b][1in]{1.5in}{\psbarcode{241078}{includetext width=1.5 height=1}{code39}}}
bar
```



```
foo
\fbbox{%
\begin{pspicture}(0,-8pt)(1.5in,1in)
\psbarcode{241078}{includetext width=1.5
height=1}{code39}
\end{pspicture}}
bar
```

4 Possible barcodes

The following section shows the symbologies that are supported by the encoders, including the available features for each. This list may not be up-to-date. If it does not contain any of the formats or features that you require then check the project source code or try the support mailing list.

4.1 EAN-13

Characters 0123456789

Data 12 or 13 digits

Options

Option	Feature
<code>includetext</code>	Enable human readable text

Notes If just 12 digits are entered then the check digit is calculated automatically



```
\begin{pspicture}(3,1.2in)
\psbarcode[scalex=0.8,scaley=0.8]{9783865415561}{includetext guardwhitespace}{ean13}
\end{pspicture}
```


4.2 EAN-8

Characters 0123456789

Data 8 digits

Options

Option	Feature
<code>includetext</code>	Enable human readable text



```
\begin{pspicture}(-2,-1.2)(0,0.2in)
\psbarcode[rotate=180,linecolor=red]{01335583}{includetext guardwhitespace height=0.6}{
ean8}
\end{pspicture}
```

4.3 UPC-A

Characters 0123456789

Data 11 or 12 digits

Options

Option	Feature
<code>includetext</code>	Enable human readable text

Notes If just 11 digits are entered then the check digit is calculated automatically



● Origin

```
\begin{pspicture}(3,1.2in)
\psbarcode[transx=15pt,transy=10pt]{78858101497}{includetext}{upca}
\qdisk(0,0){3pt}\rput[lb](5pt,-10pt){Origin}
\end{pspicture}
```

4.4 UPC-E

Characters 0123456789

Data 7 or 8 digits

Options

Option	Feature
<code>includetext</code>	Enable human readable text

Notes If just 7 digits are entered then the check digit is calculated automatically



```
\begin{pspicture}(1.5,1.2in)
\psbarcode{0123456}{includetext}{upce}
\end{pspicture}
```

4.5 EAN-5

Characters 0123456789

Data 5 digits

Options

Option	Feature
includetext	Enable human readable text



```
\begin{pspicture}(2,1in)
\psbarcode{90200}{includetext guardwhitespace}{ean5}
\end{pspicture}
```

4.6 EAN-2

Characters 0123456789

Data 2 digits

Options

Option	Feature
includetext	Enable human readable text



```
\begin{pspicture}(1,1in)
\psbarcode{38}{includetext guardwhitespace}{ean2}
\end{pspicture}
```

4.7 ISBN

An ISBN symbol is really an EAN-13 with a particular prefix, 978 for the older ISBN-10 format, and others for the new ISBN-13 format.

Characters -0123456789

Data 9 or 10 digits for ISBN-10 separated appropriately with dashes

Data 12 or 13 digits for ISBN-13 seperated appropriately with dashes

Options

Option	Feature
<code>includetext</code>	Enable human readable text

Notes If just 9 (ISBN-10) or 12 (ISBN-13) digits are entered then the human readable, ISBN check digit is calculated automatically

ISBN 978-3-86541-114-3



```
\begin{pspicture}(3,1in)
\psbarcode{3-86541-114}{includetext guardwhitespace}{isbn}
\end{pspicture}
```

ISBN 978-3-86541-114-3



```
\begin{pspicture}(3,1in)
\psbarcode{978-3-86541-114}{includetext guardwhitespace}{
isbn}
\end{pspicture}
```

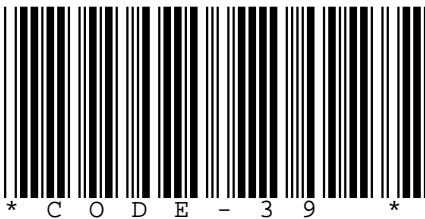
4.8 Code-39

Characters 0123456789ABCDEFGHIJKLMN0PQRSTUVWXYZ- . \$/

Data Variable number of characters, digits and any of the symbols - . *\$/%.

Options

Option	Feature
<code>includecheck</code>	Enable check digit
<code>includetext</code>	Enable human readable text
<code>includecheckintext</code>	Make check digit visible in text



```
\begin{pspicture}(5,1in)
\psbarcode{CODE-39}{includecheck includetext}{code39}
\end{pspicture}
```

4.9 Code-128 and UCC/EAN-128

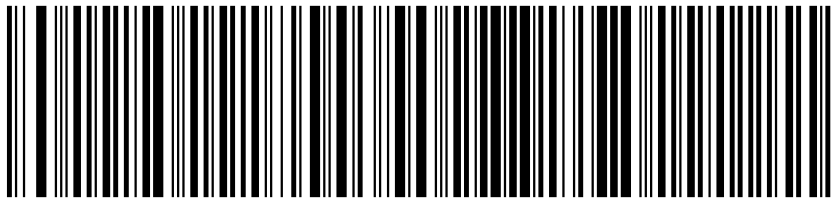
Characters !"#\$%&'(\)*+, -./0...9:;<=>?@A...Z[\]^_`a...z{|}~

Data Variable number of ASCII characters and special funtion symbols, starting with the appropriate start character for the initial character set. UCC/EAN-128s must have a manditory FNC 1 symbol immediately following the start character.

Options

Option	Feature
includetext parse	Enable human readable text Any instances of ^NNN in the data field are replaced with their equivalent ASCII value, useful for specifying unprintable characters, e. g. ^029 for GS, etc.
parsefnc	Non-data function characters like ^FNC1. The special pseudo characters ^LNKA and ^LNKC at the end of the symbol indicate that a GS1-128 symbol includes a CC-A/B or CC-C GS1 composite 2D component.
raw	The data field provides the input as pre-encoded codewords in ^NNN format, suitable for direct low-level encoding.

Notes Any non-printable character can be entered via its escaped ordinal value, for example ^070 for ACK and ^102 for FNC 1. Since a caret symbol serves as an escape character it must be escaped as ^062 if used in the data. The check character is always added automatically.



^104^102Count^0991234^101!

```
\begin{pspicture}(5,1in)
\psbarcode{^104^102Count^0991234^101!}{includetext}{code128}
\end{pspicture}
```



L09

```
\begin{pspicture}(5,1in)
\psbarcode{^FNC3L09}{parsefnc includetext}{code128}
\end{pspicture}
```

4.10 Rationalized Codabar

Characters 0123456789-\$/ .+ABCD

Data Variable number of digits and any of the symbols -\$/ .+ABCD.

Options

Option	Feature
includecheck	Enable check digit
includetext	Enable human readable text
includecheckintext	Make check digit visible in text



```
\begin{pspicture}(4,1in)
\psbarcode{A0123456789B}{includetext}{
  rationalizedCodabar}
\end{pspicture}
```

4.11 Interleaved 2 of 5 and ITF-14

Characters 0123456789

Data Variable number of digits. An ITF-14 is 14 characters and does not have a check digit.

Options

Option	Feature
<code>includecheck</code>	Enable check digit
<code>includetext</code>	Enable human readable text
<code>includecheckintext</code>	Make check digit visible in text

Notes The data may be automatically prefixed with 0 to make the data, including optional check digit, of even length.



```
\begin{pspicture}(5,0.7in)
\psbarcode{05012345678900}{includecheck height=0.7}{interleaved2of5}
\end{pspicture}
```

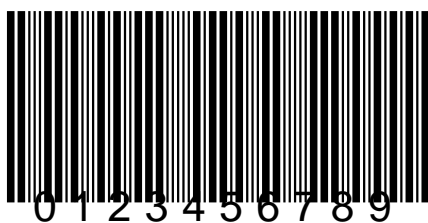
4.12 Code 2 of 5

Characters 0123456789

Data Variable number of digits

Options

Option	Feature
<code>includetext</code>	Enable human readable text



```
\begin{pspicture}(5,1.2in)
\psbarcode{0123456789}{includetext textpos=75 textfont=Helvetica textsize=16}{code2of5}
\end{pspicture}
```

4.13 Postnet

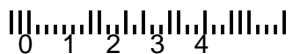
Characters 0123456789

Data Variable number digits

Options

Option	Feature
<code>includetext</code>	Enable human readable text
<code>includecheckintext</code>	Make the check digit visible in the text

Notes Check digit is always added automatically



```
\begin{pspicture}(7,0.3in)
\psbarcode{01234}{includetext textpos=-10 textfont=Helvetica textsize=10}{postnet}
\end{pspicture}
```

4.14 Royal Mail

Characters ZUVWXY501234B6789AHCDEFGNIJKLMTOPQRS

Data Variable number digits and capital letters

Options

Option	Feature
<code>includetext</code>	Enable human readable text
<code>includecheckintext</code>	Make the check digit visible in the text

Notes Check digit is always added automatically



```
\begin{pspicture}(5,0.5in)
\psbarcode{LE28HS9Z}{includetext}{royalmail}
\end{pspicture}
```

4.15 Kix (Customer index) – Dutch Mail

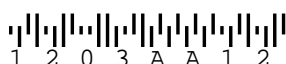
Characters ZUVWXY501234B6789AHCDEFGNIJKLMTOPQRS

Data Variable number digits and capital letters

Options

Option	Feature
<code>includetext</code>	Enable human readable text

Notes Check digit is always added automatically



```
\begin{pspicture}(5,0.3in)
\psbarcode{1203AA12}{includetext}{kix}
\end{pspicture}
```

4.16 Australian postal service

Characters ZUVWXY501234B6789AHCDEFGNIJKLMTOPQRSabc...xyz

Data Variable number digits and letters

Options

Option	Feature
<code>includetext</code>	Enable human readable text
<code>includecheckintext</code>	Make the check digit visible in the text



```
\begin{pspicture}(5,0.3in)
\psbarcode{1139549554}{includetext}{auspost}
\end{pspicture}
```

4.17 Japan post service

Characters ZUVWXY501234B6789AHCDEFGNIJKLMTOPQRSabc...xyz

Data Variable number digits and letters

Options

Option	Feature
<code>includetext</code>	Enable human readable text
<code>includecheckintext</code>	Make the check digit visible in the text



```
\begin{pspicture}(0,-5mm)(7,0.5in)
\psbarcode{6540123789-A-K-Z}{includetext textalign=center}{japanpost}
\end{pspicture}
```

4.18 onecode

Characters 0123456789

Data Variable number digits



```
\begin{pspicture}(0,-5mm)(5,0.3in)
\psbarcode{0123456709498765432101234567891}{includetext}{oncode}
\end{pspicture}
```

4.19 Symbol

The purpose of the symbol encoder is to store the definitions of miscellaneous barcode symbols such as the FIM symbols used by the US Postal Service on their reply mail.



```
\begin{pspicture}(1cm,1.5cm)
\psbarcode{fima}{}{symbol}
\end{pspicture}
```



```
\begin{pspicture}(1cm,1.5cm)
\psbarcode{fimb}{}{symbol}
\end{pspicture}
```



```
\begin{pspicture}(1cm,1.5cm)
\psbarcode{fimc}{}{symbol}
\end{pspicture}
```



```
\begin{pspicture}(1cm,1.5cm)
\psbarcode{fimd}{}{symbol}
\end{pspicture}
```

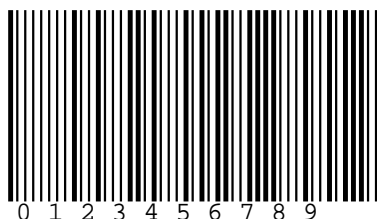
4.20 MSI

Characters 0123456789

Data Variable number digits

Options

Option	Feature
includecheck	Enable check digit
includetext	Enable human readable text
includecheckintext	Make check digit visible in the text



```
\begin{pspicture}(6,1in)
\psbarcode{0123456789}{includecheck includetext}{msi}
\end{pspicture}
```

4.21 Plessey

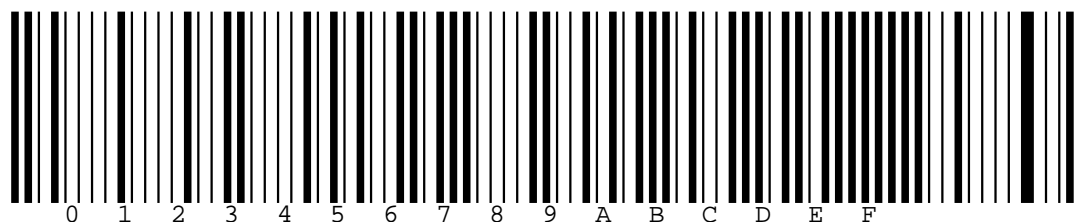
Characters 01234B6789ABCDEF

Data Variable number of hexadecimal characters

Options

Option	Feature
includetext	Enable human readable text
includecheckintext	Make the check digits visible in the text

Notes Check digits are always added automatically.



```
\begin{pspicture}(0,-2mm)(12,1in)
\psbarcode{0123456789ABCDEF}{includetext}{plessey}
\end{pspicture}
```

4.22 Reduced Space Symbology (RSS)

This is a family that includes RSS-14®, RSS Limited®, and RSS Expanded® (<http://www.gs1.org/productssolutions/barcodes/technical/rss.html>). RSS-14 and RSS Limited encode Global Trade Item Numbers (GTINs). RSS Expanded will encode any of the GS1 System identification numbers as well as all other Application Identifiers. RSS is used in the healthcare industry.

Characters 0123456789

Data Variable number digits

rss14 (databaromni)



```
\begin{pspicture}(12,.3in)
\psbarcode{(01)24012345678905}{format=truncated includetext height=0.3}{databaromni}
\end{pspicture}
```

rsslimited (databarlimited)



```
\begin{pspicture}(12,.3in)
\psbarcode{(01)15012345678907}{height=0.3}{databarlimited}
\end{pspicture}
```

rssexpanded (databarexpanded)



```
\begin{pspicture}(12,.3in)
\psbarcode{(10)12A}{height=0.3}{databarexpanded}
\end{pspicture}
```

4.23 Pharmacode

For a documentation see <http://www.laetus.com/laetus.php?request=file&id=69>.

Characters 0123456789

Data Variable number digits



```
\begin{pspicture}(12,.3in)
\psbarcode{117480}{\}{pharmacode}
\end{pspicture}
```

4.24 PDF417

For a documentation see <http://de.wikipedia.org/wiki/Strichcode#PDF417>.

Characters 0123456789

Data Variable number characters



```
\begin{pspicture}(2in,0.3in)
\psbarcode{^453^178^121^239}{columns=2 rows=10}{pdf417}
\end{pspicture}
```

4.25 Data matrix

For a documentation see <http://de.wikipedia.org/wiki/Strichcode#DataMatrix>. It is a 2D matrix-style barcode that can encode full 256 character extended-ASCII. Also known as: Data Matrix ECC 200. Variants:

GS1 DataMatrix is a variant of Data Matrix that should be used when encoding data that is in GS1 Application Identifier standard format.

HIBC Data Matrix is a variant of Data Matrix that should be used when encoding HIBC formatted data.

Standards: ISO/IEC 16022, ANSI/AIM BC11 ISS.

Data and Options

- The data field can contain any extended ASCII data.
- When the parse option is specified, any instances of ^NNN in the data field are replaced with their equivalent ASCII value, useful for specifying unprintable characters.
- When the parsefnc option is specified, non-data function characters can be specified by ^FNC1.
- The columns and rows options are used to specify the size of the symbol, either square or rectangular, one of: Square: 10x10, 12x12, 14x14, 16x16, 18x18, 20x20, 22x22, 24x24, 26x26, 32x32, 36x36, 40x40, 44x44, 48x48, 52x52, 64x64, 72x72, 80x80, 88x88, 96x96, 104x104, 120x120, 132x132, 144x144 Rectangular: 8x18, 8x32, 12x26, 12x36, 16x36, 16x48

- If the columns and rows are unspecified, the encoder will default to creating a (non-rectangular) symbol that is the minimum size to represent the given data.
- The raw option denotes that the data field is providing the input as a pre-encoded codewords in ^NNN format, suitable for direct low-level encoding.
- The encoding option specifies how the data is to be encoded. Possible values are:
 - encoding=ascii - Extended ASCII data (default).
 - encoding=c40 - Optimized encoding for upper-case alphanumeric data. Can also encode extended ASCII data but incurs extra codeword overhead.
 - encoding=text - Optimized encoding for lower-case alphanumeric data. Can also encode extended ASCII data but incurs extra codeword overhead.
 - encoding=x12 - Optimized encoding restricted to upper-case alphanumeric data plus the characters \r * > and space.
 - encoding=raw - Same as the raw option.
- The prefix option allows adding a special codeword to the symbol prior to the data. Possible values are:
 - prefix=MAC5 - Prefixes the data with the 05 Macro codeword.
 - prefix=MAC6 - Prefixes the data with the 06 Macro codeword.
 - prefix=PROG - Prefixes the data with the reader programming codeword. May require encoding=c40, depending on the reader.
 - prefix=FNC1 - Prefixes the data with the FNC1 codeword.

Characters extended ASCII

Data Variable number characters



```
\begin{pspicture}(1.5in,1.5in)
\psbarcode{Herbert Voss ^142^164^186}{rows=48 columns=48 parse}{datamatrix}
\end{pspicture}
```



```
\begin{pspicture}(1in,1in)
\psbarcode{^098^099^100^142^164^186^101^102^103^104^105}{raw}{datamatrix}
\end{pspicture}
```

4.26 2D Maxi code

For a documentation see <http://www.logicalconcepts.eu/wDeutsch/autoid/barcodetypen/index.html?navid=21>. MaxiCode is a fixed-sized two-dimensional symbology created by the United Parcel Service that is primarily used for freight sortation and tracking. It's symbols have modules arranged in a hexagonal grid around a circular finder pattern which can be read omnidirectionally.

- MaxiCode has five alphabets A, B, C, D and E, each containing 64 characters.
 - Alphabet A contains mostly upper case letters, numbers and some common ASCII symbols.
 - Alphabet B contains mostly lower case letters and common ASCII symbols.
 - Alphabet C contains mostly upper case letters from the extended ASCII character set and less common ASCII symbols.
 - Alphabet D contains mostly lower case letters from the extended ASCII character set and less common ASCII symbols.
 - Alphabet E contains mostly the special ASCII characters and unprintable symbols.
- Non-printable/typable characters can be entered as their escaped ordinal values, e.g. ^028 for FS and ^059 for [shift B], etc.
- The symbol always starts in alphabet A which is suitable for the most basic contents.
- You can switch the working alphabet within the data using the [latch B], [latch A], ... characters.
- You can temporarily shift to another alphabet for a varying number of characters using the [shift A], [2 shift A], [3 shift A], ... characters.
- You can remain in an alphabet to which you have shifted using the [lock in C], [lock in D], ... characters.
- There are also more advanced features for encoding for which a thorough reading of the specification is required as these cannot be described succinctly here.

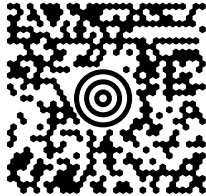
The modes:

- Mode 0 - Obsolete. (Older printers will produce Mode 0 if the firmware is outdated. Mode 0 MaxiCodes can be visually determined by examining the two horizontal hexagons in the upper right-hand corner. They will be white if the Mode is 0. For all other modes, they are black.)
- Mode 2 - Used for Numeric postal codes. (Primary use is US domestic destinations.)
- Mode 3 - Used for Alphanumeric postal codes. (Primary use is Int'l destinations.)

- Mode 4 - Standard Error Correction.
- Mode 5 - Enhanced Error Correction.
- Mode 6 - Used for programming hardware devices.

Characters @ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789

Data Variable number characters



```
\begin{pspicture}(1in,1in)
\expandafter\psbarcode{[\string\]>^03001^02996152382802^029840^029001^0291Z00004951^029UPSN^02906X
610^029159^0291234567^0291/1^029^029Y^029634 ALPHA DR^029PITTSBURGH^029PA^029^004}{mode=2 parse}{
maxicode}
\end{pspicture}
```

4.27 Aztec Code

Aztec Code is a 2 dimensional matrix style bar code symbology. Aztec Code was invented by Andrew Longacre (USA) in 1995 (http://de.wikipedia.org/wiki/Aztec_Code).

Characters 0123456789

Data Variable number characters



```
\begin{pspicture}(1in,1in)
\psbarcode{0123456789}%
{format=compact layers=3}{azteccode}
\end{pspicture}
```

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Characters 0123456789

Data Variable number characters



```
\begin{pspicture}(1in,1in)
\psbarcode{1001234567890}{showborder borderwidth=4 borderleft=15 borderright=15 height=0.5
includecheck includetext includecheckintext textyoffset=-10}{interleaved2of5}
\end{pspicture}
```

4.29 QR Code

A QR Code (Quick Response) is a 2 dimensional matrix code created by Japanese corporation Denso-Wave in 1994 (http://de.wikipedia.org/wiki/QR_Code).

Characters 0123456789

Data Variable number characters

The data field can contain any extended ASCII data. When the parse option is specified, any instances of ^NNN in the data field are replaced with their equivalent ASCII value, useful for specifying unprintable characters.

The *eclevel* option is used to specify the error correction level:

eclevel=L - Low (default for micro format symbols)

eclevel=M - Medium (default for full format symbols)

eclevel=Q - Quality

eclevel=H - High

The *eclevel* will be opportunistically raised when this does not result in an increased symbol size. The *encoding* option is used to specify a desired encoding for the input data which can sometimes result in a more optimal symbol size:

encoding=alphanumeric - Alphanumeric data

encoding=numeric - Numeric data

encoding=byte - Byte based encoding

encoding=kanji - Kanji characters based on Shift JIS

encoding=raw - Equivalent to the raw option. If left unspecified the optimal available encoding will be chosen for the given data in the following order of preference: numeric, alphanumeric, kanji, byte. The *version* option is used to specify the size of the symbol, 1 to 40 for full format symbols or *version=M1*, *version=M2*, *version=M3* or *version=M4* for micro format symbols. If unspecified, the encoder will select the version of the symbol that is the minimum size to represent the given data at the selected error correction level. The *format* option is used to select between *format=full* and *format=micro* symbol types. By default, full format symbols will be generated. The raw option denotes that the data field is providing the input as a pre-encoded bitstream (excluding the terminator bits) suitable for direct low-level encoding.



```
\begin{pspicture}(1in,1in)
\psbarcode{http://www.dante.de}{{}{qrcode}}
\end{pspicture}
```



```
\begin{pspicture}(1in,1in)
\psbarcode{http://www.dante.de}{eclevel=M}{qrcode}
\end{pspicture}
```



```
\begin{pspicture}(1in,1in)
\psbarcode{QR ^067ode}{parse}{qrcode}
\end{pspicture}
```



```
\begin{pspicture}(2in,2in)
\psbarcode{QR CODE 1234}{version=10 eclevel=Q}{qrcode}
\end{pspicture}
```



```
\begin{pspicture}(0.5in,0.5in)
\psbarcode{01234567}{format=micro}{qrcode}
\end{pspicture}
```



```
\begin{pspicture}(1in,1in)  
\psbarcode{000100000010000000001100010101100110000110000}{raw}{qrcode}  
\end{pspicture}
```