

PDF417

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also known as: ISO/IEC 15438:2001(E)

1 Example



2 Structure

The configuration for the default implementation is:

```
<barcode>
  <pdf417>
    <module-width>{length:0.352777mm}</module-width> <!-- 1 pixel at 72dpi -->
    <row-height>{length:3mw}</row-height>
    <columns>{number:2}</columns>
    <min-columns>{number:2}</min-columns>
    <max-columns>{number:2}</max-columns>
    <min-rows>{number:3}</min-rows>
    <max-rows>{number:90}</max-rows>
    <ec-level>{number:0}</ec-level>
    <quiet-zone enabled="{boolean:true}">{length:2mw}</quiet-zone>
    <vertical-quiet-zone>{length:default is same as quiet-zone}</vertical-quiet-zone>
    <width-to-height-ratio>{number:3.0}</width-to-height-ratio>
  </pdf417>
</barcode>
```

3 Notes

- This symbology has no human-readable part!
- "ec-level" is the error correction level and must be between 0 and 8.
- If "vertical-quiet-zone" is not set explicitly, it is the same as the horizontal quiet zone.
- Depending on the size of the message, "columns" and "ec-level" may need to be adjusted. Read possible error messages carefully.
- Alternatively, you can remove the "columns" setting and work with "min/max-columns" and "min/max-rows" which allows the symbol to grow and shrink depending on the message. Using the "width-to-height-ratio" you can control the shape of the symbol. (Note: the valid number of rows must be between 3 and 90, the valid number of columns between 1 and 30)
- Using the "columns" setting overrides the "min/max-columns" setting! Or in other words: Setting "columns" sets "min-columns" and "max-columns" to the same value.
- Macro PDF417 functionality is not implemented, yet.
- Compact PDF417 functionality is not implemented, yet.

4 Message format

- All printable ASCII characters are valid characters.
- Byte compaction mode permits all 256 possible 8-bit byte values to be encoded.
- Using only numeric characters allows for smaller symbol sizes.

- Currently, no ECI functionality is available. All characters are interpreted in "cp437" (PC437) encoding.
- Binary data can be supplied through URLs if they are enclosed in "url()". RFC 2397 data URLs can be used to encode inline data. An example to encode the text "~Test~":
`url(data:;base64,f1Rlc3R+)` or `url(data:text/plain;charset=iso-8859-1,%7ETest%7E)` (the "charset="iso-8859-1" is important to get characters above the 7bit US-ASCII set correctly!). Apache XML Graphics Commons has a `DataURLUtil` class that allows you to easily convert binary data to a data URL.