

# Instructions for the Xalan extension

by Jeremias Märki

## Table of contents

1 Introduction.....	2
2 Using the barcode extension for Apache Xalan.....	2
3 Using the "generate" function.....	2
4 Using the barcode extension element.....	3

## 1. Introduction

This page describes how to generate barcodes in [SVG format](#) within an XSLT stylesheet that is processed with [Apache Xalan-J](#).

## 2. Using the barcode extension for Apache Xalan

This package contains an extension for [Apache Xalan](#) for generating barcodes in SVG format.

To make the barcode extension available in your XSLT stylesheets, do the following:

- Add `barcode4j.jar` to the classpath.
- Add the following namespace declaration to the root element of your XSLT stylesheet:  
**`xmlns:barcode="org.krysalis.barcode4j.xalan.BarcodeExt"`**
- Add the barcode namespace prefix to the extension element prefixes:  
**`extension-element-prefixes="barcode"`**

Here's an example:

```
<xsl:stylesheet version="1.0"
  xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
  xmlns:fo="http://www.w3.org/1999/XSL/Format"
  xmlns:barcode="org.krysalis.barcode4j.xalan.BarcodeExt"
  extension-element-prefixes="barcode">
```

## 3. Using the "generate" function

To generate a barcode use the **`barcode:generate(NodeList, String)`** function:

1. `NodeList`: the barcode configuration (See example below and the [Barcode XML format](#)).
2. `String`: the message to be encoded

Here's an example:

```
<fo:block>
  <fo:instream-foreign-object>
    <xsl:variable name="barcode-cfg">
      <barcode>
        <code128>
          <height>8mm</height>
        </code128>
      </barcode>
    </xsl:variable>
```

```
<xsl:copy-of select="barcode:generate($barcode-cfg, '0123456789')"/>
</fo:instream-foreign-object>
</fo:block>
```

## 4. Using the barcode extension element

### Warning:

Xalan has a [bug](#) that causes a NullPointerException in FOP. Please use the extension function above until a new Xalan version is release. The bug is fixed in the codebase but no release has happened since.

To generate a barcode, simply put a barcode element in the namespace declared above into your stylesheet. The barcode element currently takes one attribute: **message**.

Here's an example:

```
<fo:block>
  <fo:instream-foreign-object>
    <barcode:barcode message="0123456789" orientation="90">
      <barcode:code128>
        <barcode:height>8mm</barcode:height>
      </barcode:code128>
    </barcode:barcode>
  </fo:instream-foreign-object>
</fo:block>
```

The XML syntax used within the barcode element is the [Barcode XML](#).

The attribute "orientation" specifies the orientation of the barcode in degrees. The attribute is optional and if set must be one of the following values: 0, 90, -90, 180, -180, 270, -270.