

# Use case: Generating an SVG DOM Document

by Jeremias Märki

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## 1 Introduction

This page describes the generation of an [SVG](#) barcode in Java.

## 2 Preparing the barcode generator configuration

**Barcode4J** depends on the [Apache Avalon Framework](#) for configuration. So the first step is to prepare an `org.apache.avalon.framework.configuration.Configuration` object. There are several ways to obtain it:

- In an Avalon-based system you will probably already have `Configuration` objects around.
- You can build it from an XML file:

```
import org.apache.avalon.framework.configuration.Configuration;
import org.apache.avalon.framework.configuration.DefaultConfigurationBuilder;

[...]
```

```
    DefaultConfigurationBuilder builder = new DefaultConfigurationBuilder();
    File cfgFile = new File("C:\Temp\barcode.cfg");
    Configuration cfg = builder.buildFromFile(cfgFile);
```

- You can build it from other XML sources such as DOM and SAX events. For more information see the Javadocs from [Apache Avalon Framework](#) (look for `DefaultConfigurationBuilder` and `SAXConfigurationHandler`).
- You can build the `Configuration` object tree by hand using `org.apache.avalon.framework.configuration.DefaultConfiguration`.

## 3 Using the BarcodeUtil class to generate a DOM DocumentFragment

The easiest way to obtain the barcode in SVG as a `DocumentFragment` is to use `org.krysalis.barcode4j.BarcodeUtil`. See the following example:

```
import org.w3c.dom.DocumentFragment;

[...]
```

```
    String myMessage = "012345679";
    DocumentFragment frag = BarcodeUtil.getInstance()
        .generateBarcode(cfg, myMessage);
```

## 4 Serializing the barcode

Obviously, you can do everything you want with the SVG graphic in that `DocumentFragment` we got. One thing you might want to do is serializing it to an SVG file, for example.

```
TransformerFactory factory = TransformerFactory.newInstance();
Transformer trans = factory.newTransformer();
Source src = new DOMSource(frag);
Result res = new StreamResult(new File("C:\Temp\myBarcode.svg"));
```

```
trans.transform(src, res);
```