im4java

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> **Note:**
> The current version of im4java is 1.3.0

1. Introduction

im4java is a pure-java interface to the ImageMagick commandline. For details about the project, please visit the main project page.

2. License

im4java is licensed under the LGPL (see file COPYING.LIB in the downloaded packages). Since im4java is a wrapper libary, you should also make sure that you comply to the individual license-statements of all the tools you use indirectly through im4java.

3. Description

im4java is (to my knowlegde) the second java interface to ImageMagick. It is not meant as a replacement for JMagick, but as an addition.

JMagick is a thin JNI layer above the ImageMagick C-API. im4java in contrast just generates the commandline for the ImageMagick commands and passes the generated line to the selected IM-command (using the java.lang.ProcessBuilder.start()-method).

Disadvantages of the approach: your are limited to the capabilities of the IM commands. With JMagick, you have access to the low-level interface of IM and therefore you have a very detailed control of the processing of images. And you have better performance.

Advantages of im4java: the interface of the IM commandline is quite stable, so your java program (and the im4java-library) will work across many versions of IM. im4java also provides a better OO interface (the "language" of the IM-commandline with it's postfix-operation notation translates very easily into OO-notation). And most important: you can use im4java everywhere JMagick can't be used because of the JNI hazard (e.g. java application servers).

4. Features

- supports most ImageMagick commands
- reuse a commandline multiple times for different set of images
- IM options and operators translate into similar method-names, e.g.

```
        -resize 1024           -> .resize(1024) or
.resize(1024,null)
        -resize 1024x768       -> .resize(1024,768)
        -resize x768           -> .resize(null,768)
        -sigmoidal-contrast 20 -> .sigmoidalContrast(20.)
        -append                -> .append()
```

```
            +append                -> .p_append()
```

- you can pipe input to and from ImageMagick commands
- BufferedImage support, i.e you can use BufferedImages as input to IM commands and pipe output of IM commands into a BufferedImage
- asynchronous execution of commands possible
- parallel processing of multiple input-images
- the architecture supports arbitrary commandline-tools
- supports GraphicsMagick
- supports jpegtran
- supports ufraw
- supports exiftool
- supports dcraw

5. Download

Source and binary packages are available for download. See the download area of the im4java-project. The current version is **1.3.0**.

You can find a comprehensive list of changes in the release notes and all the details in the file *ChangeLog*.

6. Maven-Repository

Thanks to the effort of users, the im4java-library is also available from maven. An alternative site is here (kudos to the people at cedarsoft). Note that maven is not supported by the im4java-project due to lack of expertise.

The necessary pom-entry for the alternative repository is:

```
<repositories>
  <repository>
    <id>cedarsoft-thirdparty</id>

<url>http://maven.cedarsoft.com/content/repositories/thirdparty/</url>
  </repository>
</repositories>
```

7. Mailing Lists

Currently (due to low traffic and due to the same topic), the JMagick and the im4java projects share the same mailing-lists. Please go to the project page of JMagick and register to the jmagick-users mailing list.

8. Projects using im4java

- http://natbraille.free.fr