

# ADAMS

Advanced **D**ata mining **A**nd **M**achine learning **S**ystem

Module: adams-imaging-boofcv



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# Chapter 1

## BoofCV

BoofCV is an API for real-time computer vision and robotics applications[2].

The following actors are available:

- `source.WebcamImage` – obtains frames from the default webcam.
- `transformer.BoofCVTransformer` – performs a transformation using an existing BoofCV transformer class on the incoming image and outputs another image again.
- `transformer.BoofCVDetectLines` – detects lines in images using a Hough line detector based on polar parametrization.
- `transformer.BoofCVFeatureGenerator` – turns a `BoofCVImageContainer` into an `weka.core.Instance` object to be used in WEKA. The attached meta-data in form of a report can be added to the output object as well.



## Chapter 2

# Object tracking

TODO





## Chapter 3

# Object conversion

The following conversions are available to convert from one format into another:

- *BoofCVImageToBufferedImage* – for BoofCV to JAI/ImageMagick conversion.
- *BufferedImageToBoofCV* – for JAI/ImageMagick to BoofCV conversion.



# Bibliography

- [1] *ADAMS* – Advanced Data mining and Machine learning System  
<https://adams.cms.waikato.ac.nz/>
- [2] *BoofCV* – BoofCV is an open source Java library for real-time computer vision and robotics applications.  
<http://boofcv.org/>