

# An Artifact Crawler for Determining Code Component Architectures

## Summary

The reuse of Free/Libre and Open Source Software (FLOSS) components is becoming more prevalent. Because of that, software developers need to understand the code component architecture of their products and projects.

Our goal is to develop a tool that visualizes a model of this architecture. We want to automatically derive the model from building artifacts (build scripts as well as log files).

This master thesis is to develop a crawler for this purpose, that can be used for Java-based projects with Maven as build tool.

## Work Results

- Literature review
  - Code component architectures, component-based architectures
  - Building scripts and their artifacts.
  - Existing software solutions like Fossology, sw360, etc.
- Thesis methods
  - Definition of requirements.
  - Design and implementation of work in Java.
  - Evaluation of work.
- Thesis results
  - Design and implement of a crawler.
    - Supports Java-based projects with Maven as build tool.
    - Provides extendable crawler architecture.

## Supervisor

Andreas Bauer, [andi.bauer@fau.de](mailto:andi.bauer@fau.de);

Prof. Dr. Dirk Riehle, [dirk.riehle@fau.de](mailto:dirk.riehle@fau.de)

Open Source Research Group, Computer Science Department, Friedrich-Alexander University

More information: <http://osr.cs.fau.de/theses/resources/>