

Development Environment Setup

Tools

Install the following tools needed for AMPPD development:

- Java SE11: We'll use OpenJDK instead of Oracle JDK: <https://jdk.java.net/11/>
- Python 2.7
- IDE that has built-in or plugin support for Git, Springboot, Maven etc, For ex.
 - Eclipse (4.10 or the latest): free
 - IntelliJ: need license
- Git: one of the following
 - Git CLI: <https://git-scm.com/downloads>
 - Smartgit: <https://www.syntevo.com/smartgit/>
 - Eclipse plugin: EGit
 - IntelliJ has built-in Git support
- Springboot: one of the following
 - Standalone STS 4: <https://spring.io/tools>
 - Eclipse plugin for STS 4: <https://marketplace.eclipse.org/content/spring-tools-4-spring-boot-aka-spring-tool-suite-4>
- Maven: one of the following
 - Standalone (if you want to use Maven CLI): <https://maven.apache.org/install.html>
 - Eclipse 4.10: included as a plugin
- Tomcat: one of the following
 - Standalone (useful for deployment to Tomcat server directly): <https://tomcat.apache.org/tomcat-7.0-doc/appdev/installation.html>
 - With Springboot: built-in Tomcat servlet is included in fat war
- PostgreSQL:
 - PostgreSQL 11.0: <https://www.postgresql.org/download/>

APIs

We use the following API for development, the relevant dependencies are included in pom.xml of the corresponding projects:

- Spring Boot
- Jersey (used by blend4j)
- Hibernate/JPA
- JUnit
- TestNG (used by blend4j): if you are using Eclipse, you need to [download the plugin](#)
- Log4j
- Liquibase

Repositories

Clone the following projects for AMPPD at [AMP Github home](#):

- [amppd](#):
 - the main AMPPD app
 - In Eclipse, you can run the app with Maven clean or as Spring Boot App
 - In Eclipse, you can run the tests with Maven test or as JUnit test
- [galaxy](#):
 - currently serves as the backend workflow engine for amppd, also used for workflow UI's in the pilot project
 - To run it, go to the root directory where galaxy is installed, and type `./run.sh`
 - Note: Galaxy currently requires Python 2.7 on Linux to run
- [blend4j](#):
 - a java library providing APIs to interact with Galaxy REST endpoints
 - In Eclipse, you can run the tests with Maven test or as TestNG test

Other projects under [AMP Github home](#) are not under active development. They serve either as dependencies or references. Download them if you want to view the source code.

Galaxy Dependencies

Below are a list of tools, command line and python, that need to be installed independently to run workflows.

- jq
- python3
- boto3
- spacy (pip)
- pyscenedetect (pip)
- pytesseract (pip)