

# Kurator-Akka Tutorial

## Using Kurator-Akka to develop workflows by configuration with yaml

This is developer documentation on how to build Kurator-Akka. See also the FP-Akka: [User Documentation](#)

For further information, see the README files in each of the projects.

## Building Kurator-Akka:

You will need to have git, maven, java, and python installed to build kurator-akka.

cd into a directory you want to hang the kurator projects off of, and clone the following three projects:

```
git clone https://opensource.ncsa.illinois.edu/bitbucket/scm/kurator/kurator-jython.git
git clone https://github.com/kurator-org/kurator-akka.git
git clone https://github.com/kurator-org/kurator-validation.git
```

Then build kurator-akka and kurator-validation

```
cd kurator-akka
mvn install
cd kurator-validation
mvn install
```

The kurator-akka project contains the framework for running kurator workflows written in yaml with code written in java or python. The kurator-validation project contains domain specific kurator components for quality control of biodiversity data. kurator-jython is a hack for integration of python code in Kurator-Akka workflows using jython.

You can also build the kurator-web web UI with:

```
git clone https://github.com/kurator-org/kurator-web.git

cd kurator-web
mvn package play2:run
```

By default, the web UI is then accessible at <http://localhost:9000/>

Some more information is available in the README files for each of the projects

<https://github.com/kurator-org/kurator-akka>

<https://github.com/kurator-org/kurator-validation>

<https://github.com/kurator-org/kurator-web>

## Adding New Actor Code

Actors may be (among others).

1. Java classes that extend `org.kurator.akka.AkkaActor` and implement an `onData(Object value)` method.
2. Java classes that are wrapped with `org.kurator.akka.PojoActor`
3. Python classes that wrapped with `org.kurator.akka.PythonClassActor`.

Actors get yaml definitions that give them an ID, type, and class as defined in `actors.yaml`

Those IDs for actors are linked together into workflows in yaml workflow definition files.

We do not yet have a framework for adding new actor code as dependencies outside of a build of the framework (where generic actors go in kurator-akka and biodiversity domain business logic actors go in kurator-validation), but we intend to do this.