

# M-ELKI User Guide

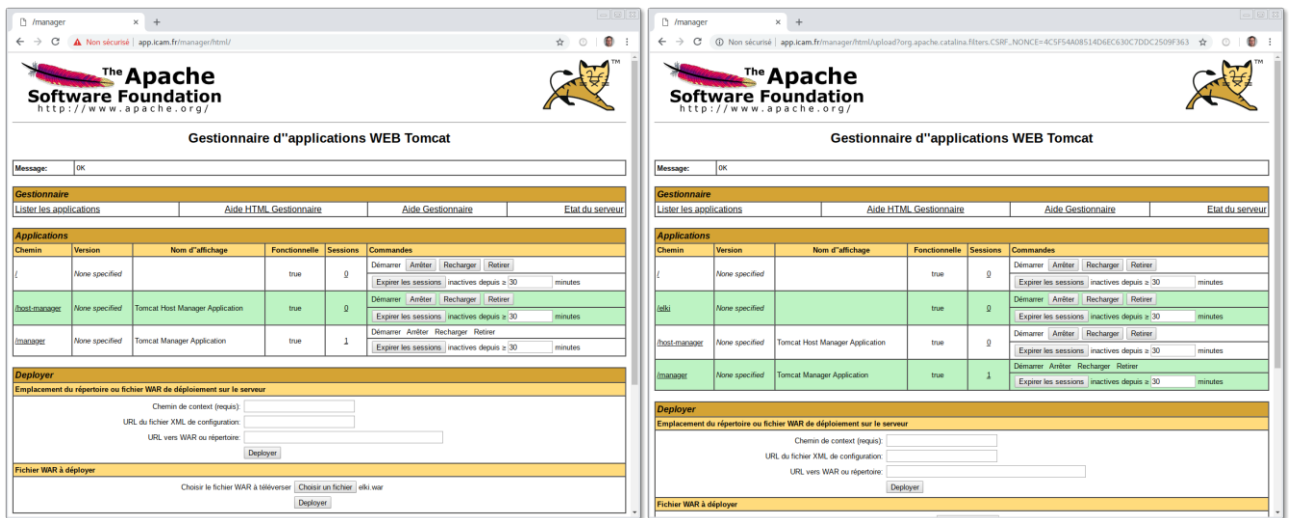
## Analysis Tool of MEASURE Platform

M-ELKI is a set of web services that make possible to run clustering algorithms from projects hosted on the MEASURE Platform.

### Installation

M-ELKI installation is very easy. It merely consists in uploading a web application archive (WAR file) on a Java Servlet Container such as Apache Tomcat, Apache TomEE, Apache Jetty, Oracle GlassFish, RedHat Jboss, IBM Websphere.

The following figures show such a deployment of the M-ELKI web app archive:



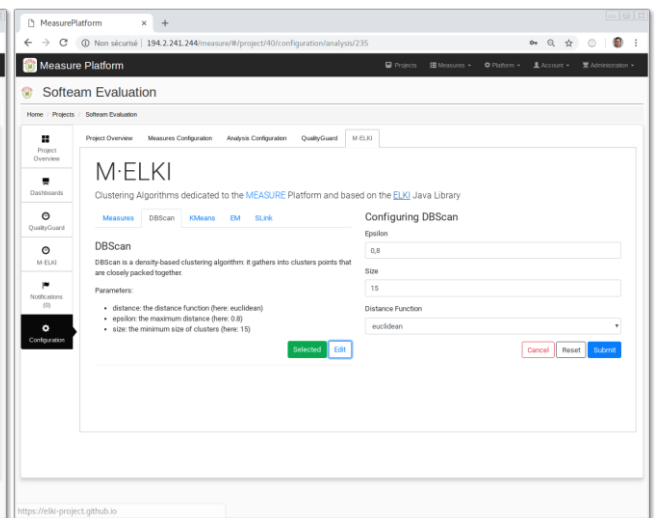
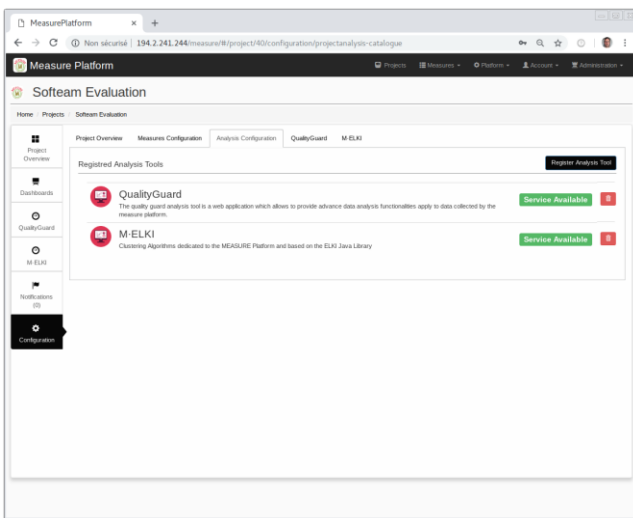
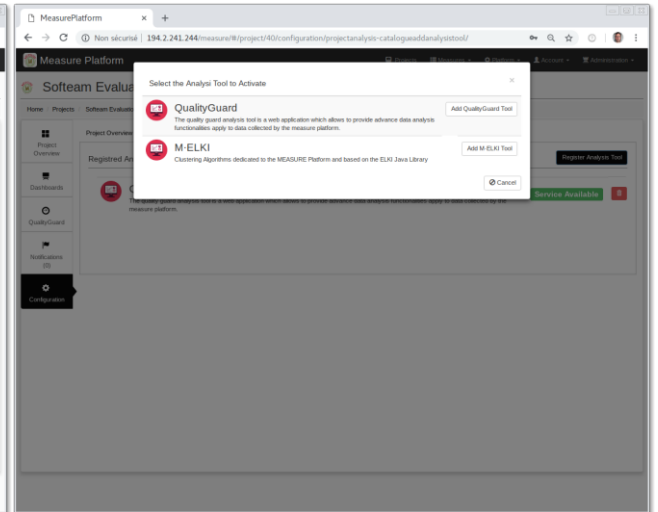
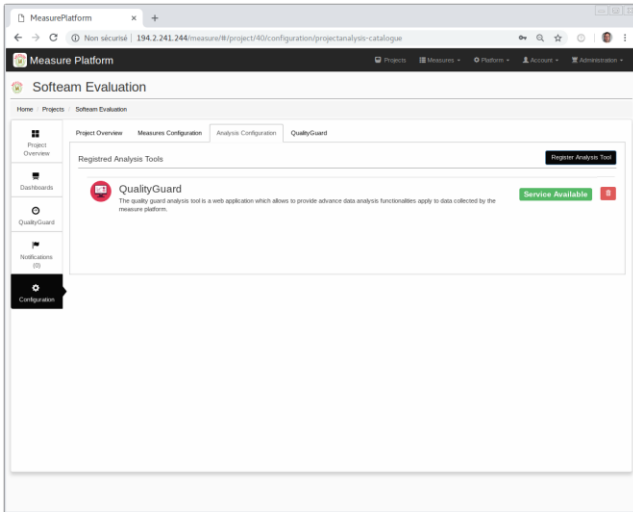
There exists a second installation procedure of M-ELKI that consists in retrieving its source from its GitHub repository and in deploying it programmatically thanks to Maven by the means of the following commands:

- `git clone https://github.com/ITEA3-Measure/M-ELKI.git`
- `mvn clean compile package install tomcat7:redeploy`

That's it! You merely have to update the correct settings into the different Maven project configuration descriptions (pom.xml files) in order to host M-ELKI onto a custom and dedicated server. However, a default M-ELKI instance already runs on Icam servers.

### Registration

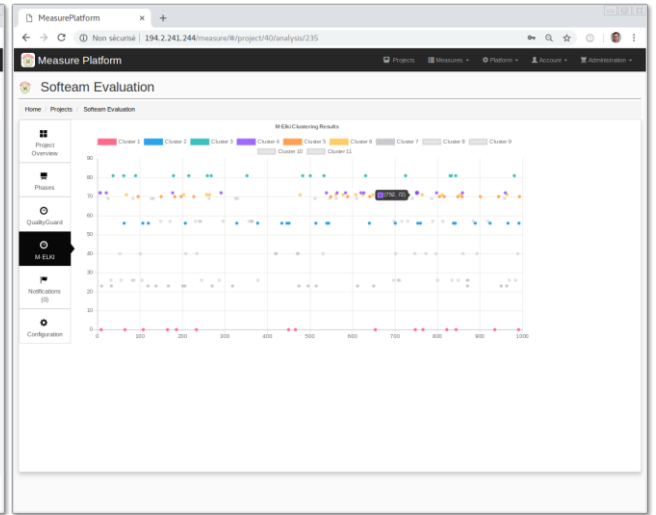
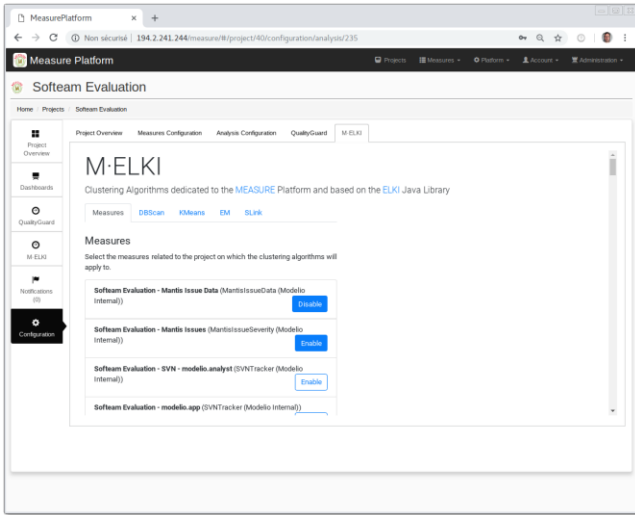
Once deployed, the M-ELKI analysis tool automatically registered itself on the MEASURE Platform. However, it remains to the users to apply M-ELKI to their targeted projects. The following pictures show how to do such a registration: it is straightforward as users only have to select the M-ELKI tool.



## Configuration

The M-ELKI project instance is also easily configurable. There are two kinds of settings:

1. the selection and parametrization of a clustering algorithm among 4 algorithms (DB SCAN, K MEANS, EM and SLINK, see picture above);
2. the selection of the project-related measures whose measurements will be processed by the selected clustering algorithm (see picture below).



## Visualization

The last picture show how to visualize M-ELKI clustering analysis results. The latter are also backed into the MEASURE Platform ElasticSearch database.