



# SCIDIP-ES Gap Identification Service Installation Quick Start

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## Prerequisites

- JAVA SE Development Kit (at least version 7)
- Apache Tomcat Server (at least version 7)
- Working instance of opensource Virtuoso<sup>1</sup>, (at least version 6.0) - only if the persistence layer that will be used is based on Virtuoso
- Source code for Gap Identification Service is available at:  
<http://sourceforge.net/p/digitalpreserve/code/HEAD/tree/SCIDIP-ES/software/services/GapIdentificationService/tags/gapidentification-service-2.5/>

## Customise configurations for local environment

After deploying GapIdentificationService webApp, the information about the persistent layer that will be used can be configured. The configuration file can be found at \$TOMCAT\_HOME/webapps/gapidentificationservice-webapps/WEB-INF/classes/eu/scidipes/impl/gapidentificationservice/server/config.properties. As described in the installation manual of Gap Identification Service there are two different persistence layers that can be used; a mainmemory layer and a persistent layer based on virtuoso triplestore. Below we describe the required updates for the different persistence layers. Note that there aren't any functional differences in the web application when using any of the persistence layers.

### Using the main-memory persistence layer.

1. Update the value of the property `runmode` to `sesamesail` as shown below. This will set the persistent layer to the main memory store.

```
eu.scidipes.impl.gapidentificationservice.runmode=sesamesail
```

2. Afterwards the user can define the data that will be initially imported in the Gap Identification Service knowledge base. More specifically the user can define a comma-separated list of urls containing RDF data for modules and profiles in the properties `modules` and `profiles` respectively.

```
eu.scidipes.impl.gapidentificationservice.mainmemory.modules=http://athena.ics.forth.gr:9090/Applications/GapManager/data/ESA/ModulesEdited.rdf.xml,http://athena.ics.forth.gr:9090/Applications/GapManager/data/ESA/ModulesPackages.rdf.xml  
  
eu.scidipes.impl.gapidentificationservice.mainmemory.profiles=http://athena.ics.forth.gr:9090/Applications/GapManager/data/ESA/Profiles.rdf.xml
```

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<sup>1</sup> <http://virtuoso.openlinksw.com/dataspace/doc/dav/wiki/Main/>



### Using the virtuoso persistence layer.

1. Update the value of the property `runmode` to `virtuoso` as shown below. This will set the persistent layer to the virtuoso triplestore.

```
eu.scidipes.impl.gapidentification.service.runmode=virtuoso
```

2. Afterwards the user must define the details for connecting to a working virtuoso triplestore. In particular the following information should be defined: host and port of the virtuoso running instance, the valid credentials for connecting to the triplestore and the name of the graphspace under which the GapIS data will be stored/retrieved.

```
eu.scidipes.impl.gapidentification.service.virtuoso.url=http://  
localhost/  
eu.scidipes.impl.gapidentification.service.virtuoso.port=1111  
eu.scidipes.impl.gapidentification.service.virtuoso.graph=http:  
//www.scidip-es.eu/gapisgraph  
eu.scidipes.impl.gapidentification.service.virtuoso.username=vi  
rtuoso_user  
eu.scidipes.impl.gapidentification.service.virtuoso.password=vi  
rtuoso_pass
```

### Harvesting data from the SCIDIP-ES registries

The user can alternatively add data coming from the SCIDIP-ES registries. However this requires extracting the available `RepInfoLabels` from the registries and then import them in the knowledge base of `GapIdentificationService` webApp. To do so execute the application found at <http://sourceforge.net/p/digitalpreserve/code/HEAD/tree/SCIDIP-ES/software/services/GapIdentificationService/trunk/RegistryExporterForGapIS/>. This application will produce an RDF file containing modules that can be afterwards imported in the GapIS webApp (through the menu `Modules` → `Import` → `from RDF/XML`).

### **Test the installation**

After deploying the `GapIdentificationService` webApp on tomcat the user can visit the homepage at

[http://<tomcat\\_host>:<tomcat\\_port>/gapidentification-service-webApp/](http://<tomcat_host>:<tomcat_port>/gapidentification-service-webApp/)

The home page should be displayed:



Home Module Profile Intelligibility Services Help

Number of Modules : 124  
Number of Dependencies : 120  
Number of Profiles : 3

Gap Identification Service  
A Dependency Management System for Digital Preservation

#### What's next?

- **Searching for information?**
  - search for modules by clicking on Module → Search
  - search for profiles by clicking on Profile → Search (or Profile → List All)
- **Adding new information?**
  - add new modules by clicking on Module → Add New
  - add new profiles by clicking on Profile → Add New
  - import new modules or profiles (bulk upload) from a file by clicking on Module/Profile → Import
- **Exploit Intelligibility-related services?**
  - compute the intelligibility gap of a set of modules with respect to a set of profiles by clicking on Intelligibility Services → Compute Gap
  - identify dependency related risks of a module by inspecting the list of its direct dependents (Module View)
- **Exporting information?**
  - export all the available information about modules/profiles by clicking on Module/Profile → Export

It is highly recommended to read the Help contents (Help → Help Contents) or the SCIDIP-ES D21.3

In the home page, just below the menu bar the total number of modules, dependencies and profiles that have been imported in the knowledge base will be reported, indicating that the data have been successfully loaded.