MAGDA Developer Client

**Overview**

MAGDA Developer Service helps the installation of MAS applications, supporting users who developed a number of mobile agents.

MAGDA Developer Service also supports the implementation of new agents: this can help during the creation of a new MAS application. It is also useful to discover the services already offered by the platform.

**Developer Client Usage**

Beware. before using this service, all the required software must have been installed on your cluster; alternatively, the MAGDA Virtual Cluster Platform can be used.

Also, the MAGDA Developer Service must have been published on the Globus container.

MAGDA Developer Client can be produced in two steps:

– automatic generation of the standard 'skeleton' code;
– implementation of the client logic in its 'main' method.

The automatic generation can be made up by using the MAGDA plugins for Eclipse.

After this operation, the main() method need to be written down: a connection to the Developer Service needs to be established. After that, the grid methods belonging to the Developer Service can be invoked.

An example for the main() method is the following:

```java
public static void main(String[] args)
{
    String instanceURI="https://serviceIP:servicePort/wsrf/services/GridDeveloperService";
    boolean useSecurity = false;
    try {
        GridDeveloperClient client = new GridDeveloperClient( instanceURI, useSecurity);

1 For further informations about software to install or MAGDA Virtual Cluster 'howtos', see [here](#).
2 See [MAGDA Developer Service](#).
3 See [MAGDA SDK Plugins](#).```
client.listaAgenti();
client.infoContainer("Container-1");
....
} catch (Exception e) { }
}

(serviceIP and servicePort are respectively the IP address and the port number belonging to the host where you published the Developer service.

When your client is ready to be executed, you can compile and execute it in the classic way:

javac serviziGRID.developer.client.GridDeveloperClient.java
java serviziGRID.developer.client.GridDeveloperClient

If you get errors during compilation, remember you need to export the Globus environment variables in order to let thing work\(^4\).

If you client throws immediately an exception when you launch it, make sure your security certificate is still valid, otherwise relaunch it\(^5\):

grid-proxy-init

**Developer Client Usage in MAGDA Virtual Cluster**

In MAGDA Virtual Cluster, the client usage is exactly the same as described in the previous section (Developer Client Usage).

In particular, the serviceIP and servicePort parameters are 192.168.1.20 and 8443.

The Globus environment variables can be exported automatically by launching the proper script file:

source /opt/gt4.0.8/etc/globus-devel-env.sh

**Test Developer Client Usage**

A test client for MAGDA Developer Service is available and ready to be used. It can be downloaded in the MAGDA SDK homepage, in the 'Services' section. (Remember to change the string instanceURI in the main() method according to the IP address and port number where you published your service.)

If you wish to launch a client test file in MAGDA Virtual Cluster, you can already find it in the /home/globus/xxx folder. That client has also been configured with the correct instanceURI string, so it is ready to be launched.

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\(^4\) For further details, see [MAGDA Virtual Cluster Documentation](#).

\(^5\) For further details, see [MAGDA Virtual Cluster Documentation](#).