MAGDA Monitoring Client

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Overview

MAGDA Monitoring Service allows the Grid Monitoring/s to monitor the agent platform and the hosts in the grid.

This proves to be useful: this service helps the Monitoring to take decisions about load balancing (between hosts/grid nodes). In this way, overloaded hosts can be prevented.

Monitoring 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\(^1\).

Also, the MAGDA Monitoring Service must have been published on the Globus container\(^2\).

MAGDA Monitoring 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\(^3\).

After this operation, the main() method need to be written down: a connection to the Monitoring Service needs to be established. After that, the grid methods belonging to the Monitoring 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/GridMonitoringService";
    boolean useSecurity = false;
    try {
        GridMonitoringClient client = new GridMonitoringClient( instanceURI, useSecurity);
```

1 For further informations about software to install or MAGDA Virtual Cluster 'howtos', see [here](#).
2 See [MAGDA Monitoring Service](#).
3 See [MAGDA SDK Plugins](#).
```java
    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 Monitoring service.

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

```
javac serviziGRID.monitoring.client/GridMonitoringClient.java
java serviziGRID.monitoring.client/GridMonitoringClient
```

If you get errors during compilation, remember you need to export the Globus environment variables in order to let thing work⁴.

If you client throws immediately an exception when you launch it, make sure your security certificate is still valid, otherwise relaunch it⁵:

```
grid-proxy-init
```

**Monitoring Client Usage in MAGDA Virtual Cluster**

In MAGDA Virtual Cluster, the client usage is exactly the same as described in the previous section ([Monitoring 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 Monitoring Client Usage**

A test client for MAGDA Monitoring 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](#).