

# Information Gatherer built, installation and configuration

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Information Gatherer (IG) is a part of the Resource Selection Service (ReSS) project. ReSS allows automatically select OSG resources based on the job requirements. The project provides OSG with a general resource selection service. IG subscribes to multiples CEMon (<http://grid.pd.infn.it/cemon/field.php>) to obtain the resource information of Compute Element and advertises this information to specified condor pools.

## ***Creating RESS rpm***

The steps that are needed for creation of rpm are listed below:

1. From upd install the following products on the node

- a. cvs
- b. ant
- c. ress\_thirdparty

The ress\_thirdparty directory contains the following jar files:

/cemon

glite-ce-monitor-api-java.jar

/classad

v2.2/

classad.jar

/common

activation.jar

axis-ant.jar

axis.jar

bcmail-jdk14-122.jar

bcpj-jdk14-122.jar

bcprov-jdk14-122.jar

bctest-jdk14-122.jar

commons-beanutils.jar

commons-discovery-0.2.jar

commons-logging-1.0.4.jar

jaxrpc.jar

log4j-1.2.8.jar

saaj.jar

wsdl4j-1.5.1.jar

/security

glite-security-trustmanager.jar

glite-security-util-java.jar

2. Download ReSS from cvs:

***export CVSROOT=cvsuser@cdcvns.fnal.gov:/cvs/cd***

***cvs checkout ReSS***

3. Build ress rpm:

- a. Login as root

- b. setup ant
- c. setup ress\_thridparty
- d. cd ReSS
- e. ant rpm\_dist

The rpm file will be located in

\$HOME/ReSS/rpm\_root/RPMS/noarch/ress-1.0-0.noarch.rpm

## ***IG Installation***

The following products should be installed on the node prior IG installation:

- 1. condor
- 2. tomcat

We assume that these products are installed from VDT cache and apache, tomcat are already properly configured.

IG can be installed from rpm:

***rpm -i ress-1.0-0.noarch.rpm***

The software will be located in /opt/ress-1.0 directory.

## ***IG Configuration***

The following steps need to be done in order to properly configure IG:

- 1. Customization of configuration file.

IG configuration file is called ig.properties. It is located in /opt/ress-1.0/var/config directory. The subsequent properties should be specified:

fnal.ress.condor.pools - list of condor's pools, separated by comma  
fnal.ress.condor.path - fully qualified path to condor installation  
fnal.ress.condor.config – fully qualified path to condor\_config script  
(default is \$CONDOR\_LOCATION/etc/condor\_config)

All the other properties in the configuration file can stay unchanged, there are in use only if dynamic subscription to CEMonitor is used.

The log4j.properties file that is located in the same directory does not need any modification unless you want to change log output level, log file size, name or its location. The default debug level is “INFO” and the log file is placed under \$CATALINA\_BASE/logs/ig.log

- 2. Customization of web application configuration file.

The file `ig.xml.template` located in `/opt/ress-1.0/var/config` should be modified and then copied under `$CATALINA_HOME/conf/Catalina/localhost` directory as `ig.xml`. The `<PRODUCT_DIR>` placeholder should be replaced by actual path to IG location (`/opt/res-1.0`)

3. Modification of apache configuration for forwarding IG requests to tomcat :  
The following lines need to be inserted into  
`$APACHE_LOCATION/config/httpd.conf`

```
JkMount /ig/* tomcat5  
JkMount /ig tomcat5  
<Location /ig>  
    SSLCACertificatePath /etc/grid-security/certificates  
    SSLVerifyClient require  
    SSLVerifyDepth 10  
    SSLOptions +StdEnvVars +ExportCertData  
</Location>
```

4. Restart apache
5. Restart tomcat
6. Verify that IG is available:  
<https://localhost:8443/ig/services/CEInfoCollector>
7. The following xml fragment should be added to each CEMon  
`predefinedSubscription.xml` file (`<IG_HOST>` placeholder should be replaced:

```
<ns1:subscription xmlns:ns1="http://glite.org/ce/monitorapi/types" retryCount="-1">  
<ns1:monitorConsumerURL>https://localhost:8443/ig/services/CEInfoCollector</ns1:monitorConsumerURL>  
    <ns1:topic>  
        <ns1:name>OSG_CE</ns1:name>  
        <ns1:dialect>  
            <ns1:name>OLD_CLASSAD</ns1:name>  
        </ns1:dialect>  
    </ns1:topic>  
    <ns1:policy>  
        <ns1:rate>50000</ns1:rate>  
    <ns1:query>  
        <ns1:expression><![CDATA[GlueCEStateWaitingJobs<2]]></ns1:expression>  
        <ns1:queryLanguage>ClassAd</ns1:queryLanguage>  
    </ns1:query>  
    <ns1:action>  
        <ns1:name>SendNotification</ns1:name>  
        <ns1:doActionWhenQueryIs>true</ns1:doActionWhenQueryIs>  
    </ns1:action>  
    <ns1:action>  
        <ns1:name>SendExpiredNotification</ns1:name>  
        <ns1:doActionWhenQueryIs>false</ns1:doActionWhenQueryIs>
```

```
</ns1:action>  
</ns1:policy>  
<ns1:expirationTime>2007-02-20T13:07:51.463Z</ns1:expirationTime>  
</ns1:subscription>
```