

D4Science Infrastructure - Task #422

Task # 421 (Closed): Create an automatic installation package for DataMiner

Report libraries and configuration components for DataMiner

Jul 23, 2015 05:28 PM - Gianpaolo Coro

Status:	Closed	Start date:	Jul 23, 2015
Priority:	Normal	Due date:	
Assignee:	Andrea Dell'Amico	% Done:	100%
Category:	High-Throughput-Computing	Estimated time:	0.00 hour
Target version:	Computational Infrastructure upgrade to smartgears		
Infrastructure:	Development, Pre-Production, Production		
Description			
Related issues:			
Related to D4Science Infrastructure - Task #207: Document the R installation ...		Closed	May 30, 2015
Related to D4Science Infrastructure - Task #1215: Install Dataminer in produc...		Closed	Oct 22, 2015
Related to D4Science Infrastructure - Task #1502: Automate the dataminer inst...		Closed	Nov 23, 2015
Related to D4Science Infrastructure - Task #1503: Install a dev dataminer VM		Closed	Nov 23, 2015

History

#1 - Jul 27, 2015 02:22 PM - Gianpaolo Coro

- Status changed from New to In Progress

- % Done changed from 0 to 50

Here I report the passages required to build a fully working development-environment DataMiner installation from scratch.

1 - Install a SmartGears-enabled tomcat service, possibly on the 80 port or with a redirect to the 80 port. Use devsec as starting scope.

2 - Download the official 52 WAR application from the following link and put it under webapps:

[http://build.dev.52north.org/jenkins/view/Processing/job/52n-wps_GIT-DEV_nightly_builds/lastSuccessfulBuild/org.n52.wps\\$52n-wps-webapp/artifact/org.n52.wps/52n-wps-webapp/3.3.2-20150523.010021-9/52n-wps-webapp-3.3.2-20150523.010021-9.war](http://build.dev.52north.org/jenkins/view/Processing/job/52n-wps_GIT-DEV_nightly_builds/lastSuccessfulBuild/org.n52.wps$52n-wps-webapp/artifact/org.n52.wps/52n-wps-webapp/3.3.2-20150523.010021-9/52n-wps-webapp-3.3.2-20150523.010021-9.war)

3 - Substitute the 52n-wps-server-3.3.2-X.jar with the corresponding jar on our Maven gcube-externals repository:

```
(Repository: "gCube Externals")
<dependency>
  <groupId>rapidminer-custom</groupId>
  <artifactId>52n-wps-server</artifactId>
  <version>3.3.2</version>
</dependency>
```

4 - add the following maven library along with its dependencies to the wps/WEB-INF/lib/ folder of the wps application:

```
(Repository: "gCube Snapshots")
<dependency>
  <groupId>org.gcube.dataanalysis</groupId>
  <artifactId>dataminer</artifactId>
  <version>1.0.0-SNAPSHOT</version>
</dependency>
```

5 - create a folder named "persistence" under wsp/

6 - create a folder named "ecocfg" under wsp/

7 - copy all the files available at this SVN link into the ecocfg folder:

<https://svn.d4science.research-infrastructures.eu/gcube/trunk/data-analysis/DataMinerConfiguration/cfg>

8 - copy the PARALLEL_PROCESSING folder at this SVN link into the ecocfg folder (thus creating the PARALLEL_PROCESSING folder under ecocfg):

```
https://svn.d4science.research-infrastructures.eu/gcube/trunk/data-analysis/DataMinerConfiguration/PARALLEL_PROCESSING
```

9 - copy the following xml file into the wps/config folder:

```
https://svn.d4science.research-infrastructures.eu/gcube/trunk/data-analysis/DataMinerConfiguration/wpscfg/wps_config.xml
```

10 - substitute the hostname and the port inside the following tag of the previous xml file, with the correct indication of the hostname of the machine and of the port (80) of the tomcat:

```
<Server protocol="http" hostname="localhost" hostport="8080" includeDataInputsInResponse="false" computationTimeoutMilliseconds="3600000" cacheCapabilities="false" webappPath="wps" repoReloadInterval="0.0" minPoolSize="10" maxPoolSize="20" keepAliveSeconds="1000" maxQueuedTasks="100">
```

11 - Put the gcube-app.xml and web.xml files, stored in the following SVN folder, into the WEB-INF wps application folder:

```
https://svn.d4science.research-infrastructures.eu/gcube/trunk/data-analysis/DataMinerConfiguration/ghn
```

12 - a reference example of configured and working wps application can be found at this link:

```
http://goo.gl/rtbHpW
```

#2 - Jul 27, 2015 02:36 PM - Pasquale Pagano

Can you add those instructions also on the gCube Admin guide?

#3 - Jul 27, 2015 03:27 PM - Gianpaolo Coro

- % Done changed from 50 to 60

The installation instructions with a "related links" section is available at this address (linked by the Admin guide page)

```
https://wiki.gcube-system.org/index.php/DataMiner_Installation
```

These are meant to be used by the parent Task [#421](#) to build an Ansible script that automates the installation.

#4 - Jul 27, 2015 06:00 PM - Gianpaolo Coro

I forgot to indicate that there is required software to be installed on the machine to run all the algorithms. This software and the related installation are reported in ticket [#207](#)

#5 - Jul 27, 2015 06:00 PM - Gianpaolo Coro

- Related to Task #207: Document the R installation on the statistical-manager nodes. added

#6 - Sep 11, 2015 05:45 PM - Gianpaolo Coro

- Assignee changed from Gianpaolo Coro to Andrea Dell'Amico

- % Done changed from 60 to 80

The DataMiner installation Wiki is complete and needs to be tested on a new machine.

#7 - Oct 22, 2015 03:25 PM - Gianpaolo Coro

- Related to Task #1215: Install Dataminer in production environment added

#10 - Nov 23, 2015 04:08 PM - Andrea Dell'Amico

- Related to Task #1502: Automate the dataminer installation as a loadbalanced service added

#11 - Nov 30, 2015 04:24 PM - Andrea Dell'Amico

Gianpaolo Coro wrote:

2 - Download the official 52 WAR application from the following link and put it under webapps:

```
http://build.dev.52north.org/jenkins/view/Processing/job/52n-wps_GIT-DEV_nightly_builds/lastSuccessfulBuild/org.n52.wps$52n-wps-webapp/artifact/org.n52.wps/52n-wps-webapp/3.3.2-20150523.010021-9/52n-wps-webapp-3.3.2-20150523.010021-9.war
```

This war does not exist anymore. It does not seem an official release URL, it's named after what it seems a jenkins nightly build.

#12 - Nov 30, 2015 04:27 PM - Andrea Dell'Amico

I see that the latest official WPS release is 3.3.1: <http://52north.org/downloads/category/15-wps>
I'll look if I'm able to find the version you used.

#13 - Nov 30, 2015 04:45 PM - Andrea Dell'Amico

@gianpaolo.coro@isti.cnr.it The 52 north's Jenkins instance keeps the latest build only. The available build of the 3.3.2 development version is this one:
[http://build.dev.52north.org/jenkins/job/52n-wps_GIT-DEV_nightly_builds/lastStableBuild/org.n52.wps\\$52n-wps-webapp/artifact/org.n52.wps/52n-wps-webapp/3.3.2-20150911.003446-11/52n-wps-webapp-3.3.2-20150911.003446-11.war](http://build.dev.52north.org/jenkins/job/52n-wps_GIT-DEV_nightly_builds/lastStableBuild/org.n52.wps$52n-wps-webapp/artifact/org.n52.wps/52n-wps-webapp/3.3.2-20150911.003446-11/52n-wps-webapp-3.3.2-20150911.003446-11.war)
But I think that relying on development builds taken from jenkins is dangerous.

#14 - Nov 30, 2015 04:58 PM - Andrea Dell'Amico

The diff between the march and the september snapshots are visible here:
http://build.dev.52north.org/jenkins/job/52n-wps_GIT-DEV_nightly_builds/lastStableBuild/changes and in more detail here:
<https://github.com/52North/WPS/compare/master...dev> (Jenkins reports the changes from the latest build). It's only the quickstart.md file, that was added and then modified more than once.

I wasn't able to find a branch for the 3.3.1 version on github so the only way to compare the two versions is to download the 3.3.1 source and manually diff between the github dev branch.

#15 - Nov 30, 2015 05:30 PM - Andrea Dell'Amico

Andrea Dell'Amico wrote:

@gianpaolo.coro@isti.cnr.it The 52 north's Jenkins instance keeps the latest build only. The available build of the 3.3.2 development version is this one:
[http://build.dev.52north.org/jenkins/job/52n-wps_GIT-DEV_nightly_builds/lastStableBuild/org.n52.wps\\$52n-wps-webapp/artifact/org.n52.wps/52n-wps-webapp/3.3.2-20150911.003446-11/52n-wps-webapp-3.3.2-20150911.003446-11.war](http://build.dev.52north.org/jenkins/job/52n-wps_GIT-DEV_nightly_builds/lastStableBuild/org.n52.wps$52n-wps-webapp/artifact/org.n52.wps/52n-wps-webapp/3.3.2-20150911.003446-11/52n-wps-webapp-3.3.2-20150911.003446-11.war)

Never mind. Jenkins still lists that one as the latest build, but it's not available anymore.

#16 - Nov 30, 2015 05:38 PM - Gianpaolo Coro

@andrea.dellamico@isti.cnr.it I would like to work with 3.3.2, since I have seen the code and there as some functions I need there. If you strongly advice not to rely on that version, we could try with 3.3.1 anyway ans see what happens.

#17 - Nov 30, 2015 05:51 PM - Andrea Dell'Amico

Usint a pre 3.3.2 release is OK by me, the problem is using temporary builds that are volatile. Anyone who wants to follow your wiki guide would be stuck even before starting, right now.
We don't have a reliable download URL for the binary. Until an official 3.3.2 will be out a temporary solution is maybe put somewhere the war you downloaded and get it from there. Do we have a place? A workspace, maybe? @roberto.cirillo@isti.cnr.it @pasquale.pagano@isti.cnr.it?

#18 - Nov 30, 2015 06:32 PM - Pasquale Pagano

Yes, if a place has to be selected the storage with a public URI is advised.

#19 - Nov 30, 2015 07:22 PM - Andrea Dell'Amico

@gianpaolo.coro@isti.cnr.it do we have a pristine binary war that we can use?

#20 - Dec 01, 2015 01:06 AM - Gianpaolo Coro

Yes I have, I will provide it via Workspace pulic link asap and we will use that for the installation.

#21 - Dec 01, 2015 10:27 AM - Gianpaolo Coro

Here is the link to the war file:

<http://data.d4science.org/uri-resolver/id?fileName=wps-3.3.2.war&smp-id=565d67b7e4b0eacf4a0fc5ad&contentType=application%2Fw-x-tika-java-web-archive>

#22 - Dec 01, 2015 12:17 PM - Andrea Dell'Amico

- Related to Task #1503: Install a dev dataminer VM added

#23 - Dec 01, 2015 12:23 PM - Andrea Dell'Amico

Gianpaolo Coro wrote:

Here is the link to the war file:

```
http://data.d4science.org/uri-resolver/id?fileName=wps-3.3.2.war&smp-id=565d67b7e4b0eacf4a0fc5ad&contentType=application%2Fx-tika-java-web-archive
```

Thanks.

#24 - Dec 01, 2015 12:26 PM - Andrea Dell'Amico

All the subversion links need to be changed from

```
https://svn.d4science.research-infrastructures.eu/gcube/trunk/
```

to

```
https://svn.research-infrastructures.eu/public/d4science/gcube/trunk/
```

to allow non authenticated users. This is also true for the wiki page.

#25 - Dec 01, 2015 12:33 PM - Gianpaolo Coro

Done for the Wiki page.

#26 - Dec 02, 2015 12:05 PM - Andrea Dell'Amico

@gianpaolo.coro@isti.cnr.it About the dataminer installation, maybe you want to add to the wiki the procedure to install the jar files from our maven repository and their dependencies?

```
mvn org.apache.maven.plugins:maven-dependency-plugin:2.8:copy-dependencies -Dartifact=org.gcube.dataanalysis:dataminer:1.0.0-SNAPSHOT -DoutputDirectory=/home/gcube/tomcat/webapps/wps/WEB-INF/lib
```

But it needs a POM. I generated a fake one and uploaded it to the target machine, into the directory from where the command is executed:

```
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/maven-v4_0_0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>org.gcube</groupId>
  <artifactId>dataminer</artifactId>
  <packaging>jar</packaging>
  <version>1.0.0-SNAPSHOT</version>
  <dependencies>
    <dependency>
      <groupId>org.gcube.dataanalysis</groupId>
      <artifactId>dataminer</artifactId>
      <version>1.0.0-SNAPSHOT</version>
    </dependency>
  </dependencies>
</project>
```

#27 - Dec 09, 2015 12:08 AM - Andrea Dell'Amico

- File pom.xml added
- Status changed from In Progress to Closed
- % Done changed from 80 to 100
- Infrastructure Pre-Production, Production added

The working pom.xml file that installs the dataminer dependencies correctly is attached.

Files

pom.xml	6.6 KB	Dec 08, 2015	Andrea Dell'Amico
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