

[OpenAz] Version 101: improved logging and tutorial

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To OpenAz Maillist:

Version 101 of OpenAz has been uploaded, which should provide a straight-forward download, build, and run as will be described below. The instructions below are basically consistent w the previous email for version 99:

<http://lists.openliberty.org/pipermail/openaz/2010-July/000077.html>

however, the instructions below are focused on running the OpenAzTutorial program, which is intended to be the starting point for expanding a broader tutorial.

The main changes in this version are:

1. The logging has been cleaned up so that log.info now only is used for informatory and not trace info.
2. The logging remains based on Apache Commons Logging (JCL):
<http://commons.apache.org/logging/guide.html>
3. A brief explanation of logging configuration options is included in the release in:
<TOPOFFPROJECT>\openaz\test\config\logging\OpenAzLoggingGuide.txt which explains how to use the SimpleLog, along w some guidance on getting log info out of sunxacml.
4. The first tutorial module:
<TOPOFFPROJECT>\openaz\test\src\tutorial\OpenAzTutorial.java has been cleaned up a bit, and basically follows the TestStyles.testStyleString() method. It does 2 requests, one for a "good user" that succeeds, and one for a "bad user" that fails. The output of executing this is shown in the attached file as a byproduct of providing the command prompt listing that follows the instructions below to download, build and run.
5. One can also run the other test programs, like TestStyles, QueryTest, and BulkDecideTest using the same command line as in the instructions below, except change the class from tutorial.OpenAzTutorial to test.TestStyles, etc. Also the file names with policy info changes, see prev email for version 99, ref'd above for that specific command line.

First the "download, build, and run" instructions, then a brief explanation of what the results should be.

The instructions below are also in the attached txt file, which also has the results of executing the instructions from a command prompt.

All the javadoc associated with the project should be included with the download and viewable from:

<TOPOFFPROJECT>\openaz\test\doc\index.html

download openaz v101 from:

<http://openaz.svn.sourceforge.net/viewvc/openaz/>

right click on lower left "Download GNU tarball" and save in the directory that will be referred to as <TOPOFFPROJECT>

for example, below, the tarball was put in:

C:\Notes\Downloads\OpenAz\V101

so, in my case:

<TOPOFFPROJECT> = C:\Notes\Downloads\OpenAz\V101

unzip the tarball in place (need to do it twice:t

1. openaz.tar.gz extracts to openaz.tar
2. openaz.tar extracts to openaz directory, which has
absolute path:
<TOPOFFPROJECT>\openaz
or:
C:\Notes\Downloads\OpenAz\V101\openaz

to build the project, the following should work from the command prompt:

```
cd <TOPOFFPROJECT>
cd openaz\test\build
ant clean
ant
```

in my case, I did:

```
cd \Notes\Downloads\OpenAz\V101
cd openaz\test\build
ant clean
ant
```

to run the tutorial program:

```
cd <TOPOFFPROJECT>\openaz\test\bin
set baseline=<TOPOFFPROJECT>\openaz
java -cp .;%baseline%\pep\bin;%baseline%\pdp\bin;%baseline%\azapi\bin;%baseline%\lib\jakarta-commons\commons-logging.jar;%baseline%\pdp\lib\

in my case, I did:

cd \Notes\Downloads\OpenAz\V101\openaz\test\bin
set baseline=C:\Notes\Downloads\OpenAz\V101\openaz
java -cp .;%baseline%\pep\bin;%baseline%\pdp\bin;%baseline%\azapi\bin;%baseline%\lib\jakarta-commons\commons-logging.jar;%baseline%\
```

If everything went as intended, the last thing should be the output from OpenAzTutorial, which is included in the attachment.

Basically, what's going on is the following:

The input file,
%baseline%\test\policy\OpenAz-Pseudo-Test-Policy.txt, is written using the XACML Shorthand described in earlier emails. The exact file contains the following:

```
PolicySet
Target
  TA (act-id, "Tutorial-Read")
Policy
Target
Rules(Policy)
  Rule (ef:Permit)
    Target
      TS (sub-id, "Joe Smith")
      TR (res-id, "C:\\\\jsmith\\\\.*" mtId:rgx-mt)
  Rule (ef:Deny)
    Target
```

This PolicySet applies to any request that has an action of "Tutorial-Read". The main reason for including this is to avoid conflict with other PolicySets, as sunxacml only allows one top-level PolicySet. This is not a "problem", but simply an artifact of XACML, which is effectively a technique for partitioning "domains" of applicability as part of managing policies. The main Policy has one rule that grants a "Permit" to Joe Smith, if he is accessing, any files under the top level directory C:\jsmith. The final rule explicitly denies anyone else access to anything and Joe Smith to anything other than his designated subdirectories of C:\jsmith. The OpenAzTutorial.runStringTest method tries 2 accesses, one by Joe Smith that works, and one by Joe Bad User that is Denied.

In the process, the program generates the XML Xacml file, which may be examined in:
<TOPOFFPROJECT>\openaz\test\policy\OpenAz-Pseudo-Test-Policy.txt.xml

The ratio of bytes of these 2 policy files is: 2273 bytes for the xacml xml file, and 235 bytes for the xacml shorthand file, which is nearly a ratio of 10:1. I expect in general that ratios between 5:1 and 10:1 will be typical when using the xacml shorthand. The main benefit in the current project is that it makes the policies 5 or 10 times easier to manage for testing purposes, and has already repaid itself in time savings for the time it took to develop it.

Next steps will focus on further enhancing the tutorial with more test cases, which initially will be pulled from TestStyles, QueryTest, and BulkDecideTest.

Will plan to have scheduled call Thu Aug 5, 1PM ET.

Thanks,
Rich

----- next part -----

An HTML attachment was scrubbed...

URL: <http://lists.openliberty.org/pipermail/openaz/attachments/20100805/d652bc9d/attachment-0001.html>

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Name: 100804-svn201-v101-download.txt

Url: <http://lists.openliberty.org/pipermail/openaz/attachments/20100805/d652bc9d/attachment-0001.txt>

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