PerfSONAR Installation

This page documents the installation experience of PerfSONAR at SLAC. It will be installed on net-desk1 - which is not visible from outside SLAC. The idea is to house a production system on jakarta2.slac.stanford.edu on which AJP13 will be used to redirect from an IIS server from outside.

PerfSONAR requires the following to operate:

- eXist (XML db)
- rrdtools
- axis (soap)

TOMCAT

- trying install on net-desk1: changing tomcat to run on port 80 (so security don't complain), run as root due to privalegded ports.
- default users do not include the necessary admin and manager roles in tomcat-users.xml. adding them in allows the built in manager app.

EXIST

- downloaded war file instead of full distro.
- added exist-1.0rc.war to deloyed.
- tomcat installs the war as exist-1.0rc; therefore the links don't work as it expects exist directory in webapps. therefore, added symlink.
- added a rrdmaservice and lookupservice users to the exist db (as per the instructions).
- dubious as this will work as i am using the tomcat war, rather than an external service running on port 8680 (as per instructuions)
- sooo... also installed the jetty/html version as per the instructions (20060316), and repeated the user additions and the mkcol commands.

AXIS

- perfsonar release recommends 1.2.1; only version 1.4 available on apache site.
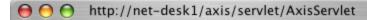- need to link the folder axis/webapps/axis to the tomcat webapps directory.

perfSONAR

- trying GUI install
- needs to pick up the ENV settings for the fields (too much to change)
- need to add AXIS_PATH/WEB-INF/lib/*.jar to CLASSPATH
- also RRDTOOL_PATH/lib
- and PERFSONAR_PATH/contrib/rrdjtool/build
- selected to install everything; changed ports to 80 and changed exist port to 80
- on configuring the exist stuff; a prompt comes up to connect to service. the URL is incomplete (after the hypen) - doesn't really matter as the readme says that i've done all this anyway (user creation).
- also complains of cgmod a+x log.sh; file doesn't appear to exist in installation

- got fed up with UI, so did console install:

```
[ytl@net-desk1:~/Work/perfSONAR/Installation/perfSONAR-1.0]$ ./install.pl
Welcome to perfSONAR v1.0

Enter Information Common to the LS and MA:

Enter base path for the application:[/afs/slac.stanford.edu/g/scs/net/netmon/perfSONAR/Installation/perfSONAR-
1.0]: /opt/perfSONAR/current/
Enter java path for the application:[/usr/local/java/current]:
Enter the hostname:[net-desk1.slac.stanford.edu]:
Enter the max file size of the log files (indicate KB or MB):[500KB]:
Enter the number of backup logs to keep:[10]:
eXist home directory:[/opt/exist/current]:


Do you want to install the RRD MA?[y/n]: y
Enter Information Specific to the RRD MA:

Tomcat home directory:[/usr/local/tomcat]: /opt/tomcat/current
Axis home directory:[/opt/tomcat/current/webapps/axis]:
Enter Tomcat port:[8080]: 80


Be sure to edit your CLASSPATH:
        CLASSPATH=$CLASSPATH:/opt/tomcat/current/webapps/axis/WEB-INF/lib/axis-ant.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/commons-discovery-0.2.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/jaxrpc.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib/saaj.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/axis.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib/commons-
```

```
logging-1.0.4.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/log4j-1.2.8.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib
/wsdl4j-1.5.1.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/resolver.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib
/xercesImpl.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/perfSONAR-generic.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib
/activation.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/xmlrpc-1.2-patched.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib
/mail.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/commons-pool-1.1.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib
/xmlParserAPIs.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/perfSONAR-rrdma.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib
/xmlsec.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/xercesSamples.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib/xml-
apis.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/rrdjtool.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib/xmldb.
jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/jdom.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib/xalan.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/exist.jar
        export CLASSPATH


Please be sure axis is installed, and tomcat is running.


Enter rrdtool path:[/usr/local/rrdtool]:


Be sure to edit your LD_LIBRARY_PATH:
        LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/usr/local/rrdtool/lib:/opt/perfSONAR/current//contrib/rrdjtool/build
        export LD_LIBRARY_PATH

Enter general service name:[Measurement Archive Service]:
Measurement Archive access point (URL):[http://net-desk1.slac.stanford.edu:80/axis/services
/MeasurementArchiveService]:
Measurement Archive service name:[Java MA]:
Measurement Archive service type:[MA]:
Measurement Archive service description:[Java RRD MA, perfSONAR project]:


Do you want to register the RRD MA with a LookupService?[y/n]: y
Lookup Information to register with (URL):[http://net-desk1.slac.stanford.edu:80/axis/services/LookupService]:
MA Storage Conf File:[/opt/perfSONAR/current//conf/rrd-database_TEST.xml]:


Do you want the MA to use an eXist database?[y/n]: y
XML database collection:[xmldb:exist://localhost:8680/exist/xmlrpc/db/rrdmaconfig]: xmldb:exist://localhost:80
/exist/xmlrpc/db/rrdmaconfig
XML database username:[rrdmaservice]:
XML database password:[rrdmaservice]:


Do you want the allow the MA to store data?[y/n]: y
RRD Storage Directory:[/opt/perfSONAR/current//data/rrd/test]:


Do you want the installer to configure eXist for you?[y/n]: n

Don't forget to configure the eXist database for the RRD MA.

Processing file /opt/perfSONAR/current//wsdd/ma-service-undeploy.wsdd
<Admin>Done processing</Admin>
Processing file /opt/perfSONAR/current//wsdd/ma-service-deploy.wsdd
<Admin>Done processing</Admin>
mv: cannot stat `client/MA*': No such file or directory


Do you want to install the LS?[y/n]: y
Enter Information Specific to the LS:

Tomcat home directory:[/usr/local/tomcat]: /opt/tomcat/current
Axis home directory:[/opt/tomcat/current/webapps/axis]:
Enter Tomcat port:[8080]: 80
```

```
Be sure to change your CLASSPATH:
        CLASSPATH=$CLASSPATH:/opt/tomcat/current/webapps/axis/WEB-INF/lib/axis-ant.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/commons-discovery-0.2.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/jaxrpc.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib/saaj.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/axis.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib/commons-
logging-1.0.4.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/log4j-1.2.8.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib
/wsdl4j-1.5.1.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/resolver.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib
/xercesImpl.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/perfSONAR-generic.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib
/activation.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/xmlrpc-1.2-patched.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib
/mail.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/commons-pool-1.1.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib
/xmlParserAPIs.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/xmlsec.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib
/xercesSamples.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/xml-apis.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib/xmldb.
jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/jdom.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib/xalan.jar: \
/opt/tomcat/current/webapps/axis/WEB-INF/lib/perfSONAR-xmlls.jar:/opt/tomcat/current/webapps/axis/WEB-INF/lib
/exist.jar
        export CLASSPATH

Please be sure tomcat, axis, and eXist are running.

Lookup Information of service -- access point (URL):[http://net-desk1.slac.stanford.edu:80/axis/services
/LookupService]:
Lookup Information of service -- service name:[Java LS]:
Lookup Information of service -- service type:[LS]:
Lookup Information of service -- service description:[Java LS, perfSONAR]:
Lookup Service to register Lookup Information:[http://net-desk1.slac.stanford.edu:80/axis/services
/LookupService]:
Enter service name:[Lookup Service]:

LS Storage -- XML database collection:[xmldb:exist://localhost:8680/exist/xmlrpc/db/ls]: xmldb:
exist://localhost:80/exist/xmlrpc/db/ls
LS Storage -- XML database username:[lookupservice]:
LS Storage -- XML database password:[sonar]:


Do you want the installer to configure eXist for you?[y/n]: n
LS Cleanup -- cleanup interval (ms):[180000]:
Register with LS interval (ms):[600000]:
Processing file /opt/perfSONAR/current//wsdd/ls-service-undeploy.wsdd
<Admin>Done processing</Admin>
Processing file /opt/perfSONAR/current//wsdd/ls-service-deploy.wsdd
<Admin>Done processing</Admin>


Do you want to clean up the installation?[y/n]: y
[ytl@net-desk1:~/Work/perfSONAR/Installation/perfSONAR-1.0]$
```

- think the configuration of exist dbs a bit screwy.
- anyway, http://net-desk1/axis/servlet/AxisServlet shows following which kinda implies its running...

And now... Some Services

- AdminService *(wsdl)*
    - AdminService
    - AdminService
- Version *(wsdl)*
    - getVersion
    - getVersion
- MeasurementArchiveService *(wsdl)*
    - acceptCall