Hands-on: Inca deployment

Part 2
Administrative Tasks Covered

1. Stopping/starting Inca components
2. Adding a reporter to a suite
3. Adding a new resource using Globus access method
4. Adding a new suite
5. Adding a new repository
6. Adding/using macros
7. Committing changes
8. Changing the depot backend database to Postgres
Step 1: Start incat

% inca start incat -A localhost:6323 &
Step 2: Add a reporter to TestSuiteLocal

a) Click on Suites tab

b) Click on Add button
Step 2: Add a reporter to TestSuiteLocal (cont.)

c) Choose the glibc version reporter
d) Choose siteA
e) Choose an execution time. This shows every 10 minutes starting at minute 9. Note, if the current time is say 2:00pm, the first time the glibc reporter will be executed is at 2:09pm. If you want to see the result show up on the web page sooner, set Starting At to 2 so that the reporter will run at 2:02pm.
Step 2: Add a reporter to TestSuiteLocal (cont.)

f) Choose Commit
Step 2: Add a reporter to TestSuiteLocal (cont.)

g) Verify result by `swStack.xml` located in `$INCA_INSTALL/etc/common` with
   [http://inca.sdsc.edu/workshop/swStack.xml](http://inca.sdsc.edu/workshop/swStack.xml)
   
   ```
   % cd $INCA_LOCATION/etc/common
   % rm swStack.xml
   % wget \
   [http://inca.sdsc.edu/workshop/swStack.xml](http://inca.sdsc.edu/workshop/swStack.xml)
   ```

h) Reload web page and wait for result
**Step 3: Modify default configuration**

Before adding remote resources, edit inca.properties and provide the fqdn of the machine using the following steps:

1. Stop the Inca server components
   ```
   % inca stop all
   ```

2. Close incat window.

3. Edit `inca.properties` in `$INCA_INSTALL/etc/common` and replace all instances of `localhost` with the fqdn of the machine you are using (e.g., `hogg.sdsc.edu`).

4. Start the Inca server components
   ```
   % inca start all
   ```

5. Start Incat
   ```
   % inca start incat -A localhost:6323
   ```
**Step 4: Add new resource**

a) Click the *Resource Configuration* tab.

b) Click *Add* under *Resource Group*
Step 4: Add a new resource (cont.)

c) Add one of the following resources using Globus as the access method called siteB:
   - rocks-111.sdsc.edu
   - rocks-112.sdsc.edu
   - rocks-113.sdsc.edu
   - rocks-104.sdsc.edu
Step 5: Define a resource macro

a) Highlight siteB and click the Add button under Macros.
Step 5: Define a resource macro (cont.)

b) Define the macro \textit{GLOBUS\_HOSTS} with values

\textit{rocks-111.sdsc.edu rocks-112.sdsc.edu}

c) Click \textit{Ok} button.
Step 6: Add a new repository

a) Click on **Repositories** tab

b) Click the *Add* button under **Repositories** and type in **http://inca.sdsc.edu/workshop/repository**
Step 6: Add a new repository (cont.)

b) You should see a “Retrieving info from Agent” message.

Once complete, scroll down to see the new reporter: `cluster.scripting.perl.version`
Step 7: Create a new suite

a) Click on Suites tab.

b) Click the Add button under Suite and type in WorkshopSuite as the name for your new suite.
Step 8: Add perl version reporter to suite

a) Click on the Add button under Series
Step 8: Add perl version reporter to suite (cont.)

b) Choose perl version reporter

c) Choose siteB.

d) Choose an execution time. This shows every 5 minutes starting at minute 1.

e) Click Ok.
Step 9: Add globus gatekeeper test to suite

a) Choose globus gatekeeper test reporter
b) Choose siteB
c) Choose `@GLOBUS_HOSTS@` as the host argument.
d) Choose `gatekeeper_to @GLOBUS_HOSTS@` as the Nickname.
e) Choose `/bin/sh -l -c '@EXEC@'` as the Exec string
f) Choose an execution time. This shows every 5 minutes starting at minute 3.
g) Click Ok.
Step 10: Commit changes

Choose Commit
Step 11: View result

a) Copy swStack2.xml from
http://inca.sdsc.edu/workshop/swStack2.xml
into
$INCA_INSTALL/etc/common
% cd
$INCA_INSTALL/etc/common
% wget \
http://inca.sdsc.edu/workshop/swStack2.xml

b) Open page:
sdsc.edu:8080/swStack.xsl&resourceID=siteB&suiteName=WorkshopSuite&xmlFile=swStack2.xml
**Step 12: Use postgres as db backend**

a) Stop the depot

```
% inca stop depot
```

b) Edit `$INCA_INSTALL/etc/hibernate.properties`

i. Comment out the first 5 lines which specifies for hibernate to use hsql as its backend database:

```
#hibernate.dialect=org.hibernate.dialect.HSQLDialect
#hibernate.connection.driver_class=org.hsqldb.jdbcDriver
#hibernate.connection.url=jdbc:hsqldb:test
#hibernate.connection.username=sa
#hibernate.connection.password=
```
Step 12: Use postgres as db backend (cont.)

ii. Uncomment the second block of lines 8-13 which specifies for hibernate to use postgres:

```java
# Settings for a local PostgreSQL database.
hibernate.dialect=org.hibernate.dialect.PostgreSQLDialect
hibernate.query.substitutions=yes 'Y', no 'N'
hibernate.connection.driver_class=org.postgresql.Driver
hibernate.connection.url=jdbc:postgresql:test
hibernate.connection.username=test
hibernate.connection.password=
```
**Step 12: Use postgres as db backend (cont.)**

iii. Replace the value `jdbc:postgresql:test` for property `hibernate.connection.url` on line 11 with the following:

```java
hibernate.connection.url=
jdbc:postgresql://rocks-111.sdsc.edu/u261xx
```

where `u261xx` is your username.

iv. Replace the value “test” for property `hibernate.connection.username` on line 12 with your username

```java
hibernate.connection.username=u261xx
```
Step 12: Use postgres as db backend (cont.)

c) Download the postgres jdbc jar file pg74.216.jdbc3.jar to your $INCA_INSTALL/lib directory
   % cd $INCA_INSTALL/lib
   % wget
   http://inca.sdsc.edu/workshop/pg74.216.jdbc3.jar

d) Initialize the depot (set up the Inca tables)

   inca depot -d

   You should see something like the following message:

   Initializing c3p0 pool...
   ...
   Database Initialization Completed
Step 12: Use postgres as db backend (cont.)

d) Start the depot
   `% inca start depot`

e) Reload your web page from Step 2 or Step 11. The results will be n/a (because you are using a fresh database that has not been configured to run any reporters)
**Step 12: Use postgres as db backend (cont.)**

f) Use incat to delete WorkshopSuite. Re-add the WorkshopSuite with the perl version reporter as shown in Step 7 & 8. Wait for web page to update.

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**Software and Services**

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<th>LANGUAGES</th>
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<td>version: any</td>
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